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THE

AMERICAN FARMER,

CONTAINING

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ON

AGRICULTURE, HORTICULTURE,

RURAL AND DOMESTIC ECONOMY,

AND

INTERNAL IMPROVEMENTS:

WITH

ILLUSTRATIVE ENGRAVINGS AND THE PRICES OF COUNTRY PRODUCE.

GIDEON B. SMITH, EDITOR.

> "*O fortunatos nimium sua si bona norint*
> "*Agricolas.*"..........................VIRG.

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AMERICAN FARMER.

RURAL ECONOMY, INTERNAL IMPROVEMENTS, PRICES CURRENT.

"O fortunatos nimium sua si bona norint
"Agricolas."..................................Virg.

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AGRICULTURE.

RECRUITING WORN OUT LANDS.

Moon's Mount, Caroline Co. Va. March 4th.

J. S. Skinner, Esq.

I have, since turning my attention somewhat from an exclusively professional to an agricultural life, taken your valuable paper, from which I have derived much useful instruction. In your 50th No. dated 26th February, you have published a letter from Mr. B. B. Cooper, on the subject of recruiting worn out land, in which I think costly manuring to the disparagement of rest and routine of crops is rather too indiscriminately recommended. Had he more distinctly have confined his remarks to the immediate vicinity of large cities and towns, where the land is costly, and a ready, daily, cash market is at hand for hay, vegetables, fruit, &c. and drawn a distinction between such cases and the generality of agriculturists, not having these local advantages, no apprehension could arise of misleading the unwary and indiscriminating.

It is readily accorded to Mr. Cooper, that earth requires food; but that it is judicious to manure at an expense of fifteen or twenty dollars per acre, in this country, except in the situation above mentioned, is I think very doubtful. It seems to me that the product, even where the soil is adapted for retaining manure, at the prices of the great agricultural staples, would not pay a moderate interest on the capital invested. Were lands generally high priced, either from redundant population or high prices of produce, it might be otherwise; but while there are billions of acres of public land in market, at $1 25 per acre, richer than Mr. Cooper's lots, lands will in the old states be cheap; and it is obvious that capital can be more advantageously used in cultivating the rich and still cheaper new lands, than in manuring poor land at such an expense as from $15 to $20 per acre.

The above comparison refers to emigration, which it is far from my present object to recommend. The object at present is to vindicate the system of restoring our worn out lands by rest and rotation of crops, and to prevent a heedless attempt to manure at great expense in situations remote from cities and towns, with a hope of profit greater than from the rest and routine system—and for illustration sake, I propose to take the case of two merchants quitting business to settle on farms, each winding up with the moderate capital saved of $7000, to be invested. One buys a tract of 230, the other 500 acres, in eastern Virginia, or Maryland, at $100 per acre; the 230 acre farmer expends $16 per acre on 175 acres, which makes his farm cost the same as his neighbour's 500 acres; take 45 of each for fuel and timber, and the 500 acre farm will have 400 acres to lay off in four fields, and 50 acres for a standing spring pasture—with five acres for orchard as well as the small farm: to keep the 175 acres manured and gradually improving, it should, like the larger farm, be cultivated as the large one; that is, in what is called four shifts—corn one, wheat one, clover one, and pasture one.—The product I think would stand ordinarily as follows:

From 44 acres on the manured farm, in corn, at 6 bbls. per acre, .	264 bbls.
From 44 acres in wheat, at 15 bushels per acre, ...	660 bush.
From 100 acres on the unmanured farm, in corn, at 3 barrels per acre, .	300 bbls.
From 100 acres in wheat, at 7½ bushels per acre, ...	750 bush.

The quantity of hay and provender for stock would not be very unequal, and should be used in supporting stock and working team, costing on each $500.

To cultivate these two farms I suppose $2,500 to furnish slaves for the large one, and $1,500 for the small one, which will leave $1,000 of the 230 acre farm's capital to invest or keep at interest. Must it not be admitted that the productiveness of the large farm will increase more rapidly than the small one,—at least this is the conclusion I have drawn from much observation, if not from much experience. This is I conceive an interesting subject to the agriculturist, and if my crude remarks shall illicit discussion from the more experienced, they may prove not altogether useless.

Being a stranger to the operation of free white labour in agriculture, I have limited my observations to culture by slave labour alone, but inferences may be deduced from analogy, by those familiar with the employment of free white labour.

Respectfully, &c.
John Dickinson.

[Such of the observations in the following essay as go to assert the general superiority of well rotted manure, and the disadvantages arising from the use of it in a long fresh state, must not be received without qualifying reference to the difference between the agricultural staples, and of course the systems of manuring in the two countries. In the circumstances of free and dense population, climate, and products; their reliance on grass, beef, mutton, cheese, small grain, hops, potatoes, turnips, onions, &c. &c. *old* England and *new* are more nearly similar; hence the processes that would be most productive in England are followed more nearly and with more advantage in New England, than in the middle and southern states. For corn and tobacco, manure may be applied with most enduring effect in a *long* and rough state, because the gaseous and other properties which are exhausted in the course of cultivation, and which contribute to the growth of these strong and vigorous vegetables, so far from impeding, assist in their growth, and prepare the ground, when it has been thus well rotted and intermingled by the plough with the earth, for the growth of turnips, grass, grain, &c. &c. The weeds that manure, in its rough state, would throw out to suffocate grass and small grain, do not interfere with plants of coarser and more vigorous constitution, that require frequent stirring, such as corn and tobacco—bearing this in mind, the reasoning and philosophy of the essay we have copied, as regards other crops, are probably not to be disputed. The American reader need not be reminded, that, when the English writer speaks of *corn*, he means wheat, rye, oats, barley, &c. whilst in most parts of our country, by corn we always mean *Indian corn.*]

(From Loudon's Encyclopædia of Agriculture.)

OF THE GENERAL MANAGEMENT OF MANURES.

The manures of animal, vegetable or mineral origin have been already described, and their operation explained. But a very few of these substances can be obtained by farmers in general; whose standard resources are farm-yard dung and lime, and composts of these with earth. It is on the management of these that we propose to deliver the practice of the best British farmers.

On the Management of Farm-yard Dung.

The basis of farm-yard dung is straw, to which is added in its progress through the farm-yard the excrementitious substances of live stock. From every ton of dry straw, about three tons of farm-yard dung may be obtained, if the after-management be properly conducted; and, as the weight of straw per acre runs from one ton to one and a half, about four tons of dung, on an average of the different crops, may be produced from the straw of every acre under corn. Hence (it may be noticed) the great importance of cutting corn as low as possible; a few inches at the root of the stalk weighing more than double the same length at the ear.

The conversion of straw into farm-yard dung in the farmery, is thus effected: The straw is served out to cattle and horses in the houses and fold-yards, either as provender or litter, and commonly for both purposes; turnips in winter, and green clover in summer are given to the stock both in the houses and yards; on this food the animals pass a great deal of urine, and afford the means of converting the straw into a richer manure than if it were eaten alone. All the dung from the houses, as they are cleaned out, is regularly spread over the yards, in which young cattle are left loose where litter is usually allowed in great abundance; or over the dunghill itself, if there be one at hand. This renders the quality of the whole mass more uniform; and the horse-dung, which is of a hot nature, promotes the decomposition of the woody fibres of the straw.

The preparation of the contents of the farm-yard for laying on the land, is by turning it over; or, what is preferable, carting it out to a dung-hill. The operation of carting out is usually performed during the frosts of winter: it is then taken to the field in which it is to be employed, and neatly built in dunghills of a square form, three or four feet high, and of such a length and breadth as circumstances may require. What is laid up in this manner early in winter, is commonly sufficiently prepared for turnips in June; but if it be not carried from the straw-yards till spring, it is necessary to turn it once or oftener, for the purpose of accelerating the decomposition of the strawey part of the mass. When dung is applied to fallows in July or August, preparatory to autumn sown wheat, a much less degree of putrefaction will suffice than for turnips: a clay soil, on which alone fallows should ever be resorted to, not requiring dung so much rotted as a finely pulverized turnip soil; and besides, as the wheat does not need all the benefit of the dung for some time, the woody fibre is gradually broken down in the course of the winter, and the nourishment of the plants continued till spring, or later, when its effects are most beneficial.

In the application of farm-yard dung to land under tillage, particular attention is paid to the cleanness of the soil; and to use it at the time when from the pulverisation of the ground, it may be most intimately mixed with it. The most common time of manuring with farm-yard dung is, therefore, either towards the conclusion of the fallowing operations, or immediately before the sowing of fallow crops. If no dung can be procured but what is made from the produce of the farm, it will seldom be possible to allow more than ten or twelve tons to every acre, when the land is managed under a regular course of white and green crops; and it is thought more advantageous to repeat this dose at short intervals, than to give a larger quantity at once, and at a more distant period in proportion. Farm-yard dung, it is well known, is greatly reduced in value by being exposed to the atmosphere in small heaps, previous to being spread, and still more after being spread. Its rich juices are exhaled by the sun, or washed away by the rains, and the residuum is comparatively worthless. This is in an especial manner the case with long fresh dung, the far greater part of which consists of wet straw in an entire state All careful farmers, accordingly, spread and cover in their dung with the plough, as soon as possible after it is brought on the land.

The use of fresh dung is decidedly opposite to the practice of the best farmers of turnip soils; its inutility, or rather injurious effects, from its opening the soil too much, is a matter of experience with every one who cultivates drilled turnips on a large scale. As the whole farm-yard dung, on such land, is applied to the turnip crop, it must necessarily happen that it should be laid on in different stages of putrefaction; and what is made very late in spring, often after a very slight fermentation, or none at all. The experience of the effect of recent dung is accordingly very general, and the result, in almost every case, is, that the growth of the young plants is slow; that they remain long in a feeble and doubtful state; and that they seldom, in ordinary seasons, become a full crop, even though twice the quantity that is given of short muck has been allowed. On the other hand, when the manure is considerably decomposed, the effects are immediate, the plants rise vigorously, and soon put forth their rough leaf, after which, the beetle or fly does not seize on them; and in a few weeks, the leaves become so large, that the plants probably draw the greatest part of their nourishment from the atmosphere. Though it were true, therefore, that more nutritive matter was given out by a certain quantity of dung, applied in a recent state, and allowed to decompose gradually in the soil, than if applied after undergoing fermentation and putrefaction, the objection arising from the slowness of its operation, would, in many instances, be an insuperable one with farmers. But there seems reason to doubt whether fresh strawey manure would ferment much in the soil, after being spread out in so small a quantity as has been already mentioned; and also, whether, in the warm dry weather of summer, the shallow covering of earth given by the plough would not permit the gaseous matters to escape, to a much greater amount than if fermentation had been completed in a well built covered dunghill.

Another great objection to the use of fresh farm-yard dung is, that the seeds and roots of those plants with which it commonly abounds, spring up luxuriantly on the land; and this evil nothing but a considerable degree of fermentation can obviate. The mass of materials consists of the straw of various crops, some of the grains of which, after all the care that can be taken, will adhere to the straw; of the dung of different animals voided, as is often the case with horses fed on oats, with the grain in an entire state; and of the roots, stems, and seeds of the weeds that had grown among the straw, clover, and hay, and such as had been brought to the houses and fold-yards with the turnips and other roots given to live stock.

The degree of decomposition to which farm-yard dung should arrive, before it can be deemed a profitable manure, must depend on the texture of the soil, the nature of the plants, and the time of its application. In general clayey soils, as more tenacious of moisture, and more benefited by being rendered incohesive and porous, may receive manure less decomposed than well pulverised turnip soils require. Some plants, too, seem to thrive better with fresh dung than others, potatoes in particular; but all the small-seeded plants, such as turnips, clover, carrots, &c. which are extremely tender in the early stage of their growth, require to be pushed forward into luxuriant vegetation with the least possible delay, by means of short dung.

The season when manure is applied, is also a material circumstance. In spring and summer, whether it be used for corn or green crops, the object is to produce an immediate effect, and it should therefore be more completely decomposed than may be necessary, when it is laid on in autumn for a crop whose condition will be almost stationary for many months.

Of Lime, and its Management as a Manure.

Lime is by far the most important of the fossil manures; and indeed it may be asserted that no soil will ever be fit for much, that does not contain a proportion of this earth, either naturally or by artificial application. Next to farm-yard dung, lime is in most general use as a manure, though it is one of a quite different character; and when judiciously applied and the land laid to pasture, or cultivated for white and green crops alternately, with an adequate allowance of putrescent manure, its effects are much more lasting, and, in many instances, still more benefical than those of farm-yard dung. Fossil manures, Sir H. Davy observes, must produce their effect, either by becoming a constituent part of the plant, or by acting upon its more essential food, so as to render it more fitted for the purposes of vegetable life. It is, perhaps, in the former of these ways, that wheat and some other plants are brought to perfection after lime has been applied, upon land that would not bring them to maturity by the most liberal use of dung alone. This being an established fact may be considered one of the greatest importance to all cultivators.

With regard to the quantity of lime that ought to be applied to different soils, it is much to be regretted that Sir Humphrey Davy has not thought proper to enter fully into the subject. Clays, it is well known, require a larger quantity than sands or dry loams. It has been applied, accordingly, in almost every quantity from 100 to 500 bushels or upwards, per acre. About 160 bushels are generally considered a full dressing for lighter soils, and 80 or 100 bushels more for heavy cohesive soils.

In the application of lime to arable land, there are some general rules commonly attended to by diligent farmers, which we shall give nearly in the words of a recent publication.

1. As the effects of lime greatly depend on its intimate admixture with the surface soil, it is essential to have it in a powdery state at the time it is applied.

2. Lime having a tendency to sink in the soil, it should be ploughed in with a shallow furrow.

3. Lime may either be applied to grass lands, or to land in preparation for green crops or summer fallow, with almost equal advantages; but, in general, the latter mode of application is to be preferred.

4. Lime ought not to be applied a second time to moorish soils, unless mixed up as a compost, after which the land should be immediately laid down to grass.

5. Upon fresh land, the effect of lime is much superior to that of dung. The ground, likewise, more especially where it is of a strong nature, is more easily wrought; in some instances, it is said, the saving of labor would be sufficient to induce a farmer to lime his land, were no greater benefit derived from the application than the opportunity thereby gained of working it in a more perfect manner.

In liming for improving hilly land, with a view to pasture, a much smaller quantity has been found to produce permanent and highly beneficial effects, when kept as much as possible near the surface, by being merely harrowed in with the seeds, after a fallow or green crop, instead of being buried by the plough. As this is a matter of much importance to farmers of such land, especially when lime must be brought from a great distance, as was the case in the instance to which we are about to allude, the successful practice of one of the most eminent farmers in Britain cannot be too generally known. A few years after 1754, says Dawson, "having a considerable extent of outfield land in fallow, which I wished to lime previous to its being laid down to pasture, and finding that I could not obtain a sufficient quantity of lime for the whole in proper time, I was induced, from observing the effects of fine loam upon the surface of similar soil, even when covered with bent, to try a small quantity of lime on the surface of this fallow, instead of a larger quantity ploughed down in the usual manner. Accordingly in the autumn, about twenty acres of it were well harrowed, and then about fifty-six Winchester bushels only of unslacked lime were, after being slacked, carefully spread upon each English acre, and immediately well harrowed in. As many pieces of the lime, which had not been fully slacked at first, were gradually reduced to powder by the dews and moisture of the earth, to mix these with the soil, the land was again well harrowed in three or four days thereafter. This land was sown in the spring with oats, with white and red clover and rye-grass seeds, and well harrowed, without being ploughed again. The crop of oats was good; the plants of grass sufficiently numerous and healthy; and they formed a very fine pasture, which continued good until ploughed some years after for corn. About twelve years afterwards, I took a lease of the hilly farm of Grubbet; many parts of which, though of an earthy mould tolerably deep, were too steep and elevated to be kept in tillage. As these lands had been much exhausted by cropping, and were full of couch-grass, to destroy that and procure a cover of fine grass, I fallowed them, and laid on the same quantity of lime per acre, then harrowed, and sowed oats and grass seeds in the spring exactly as in the last mentioned experiment. The oats were a full crop, and the plants of grass abundant. Several of these fields have been now above thirty years in pasture, and are still producing white clover, and other fine grasses; no bent or fog has yet appeared upon them. It deserves particular notice, that more than treble the quantity of lime was laid upon fields adjoining, of a similar soil, but which being fitter for occasional tillage, upon them the lime was ploughed in. These fields were also sown with oats and grass-seeds. The latter throve well and gave a fine pasture the first year; but afterwards the bent spread so fast, that, in three years, there was more of it than of the finer grasses."

The conclusions which Dawson draws from his extensive practice in the use of lime and dung, deserve the attention of all cultivators of similar land.

1. That animal dung dropped upon coarse, benty pastures, produces little or no improvement upon them; and that, even when sheep or cattle are confined to a small space, as in the case of folding, their dung ceases to produce any beneficial effect, after a few years, whether the land is continued in pasture, or brought under the plough.

2. That even when land of this description is well fallowed and dunged, but not limed, though the dung augments the produce of the subsequent crop of grain, and of grass also for two or three years, that thereafter its effects are no longer discernible either upon the one or the other.

3. That when this land is limed, if the lime is kept upon the surface of the soil, or well mixed with it, and then laid down to pasture, the finer grasses continue in possession of the soil, even in elevated and exposed situations, for a great many years, to the exclusion of bent and moss. In the case of Grubbet hills, it was observed, that more than thirty years have now elapsed. Besides this, the dung of the animals pastured upon such land adds every year to the luxuriance, and improves the quality of the pasture; and augments the productive powers of the soil when afterwards ploughed for grain; thus producing, upon a benty outfield soil, effects similar to what are experienced when rich infield lands have been long in pasture, and which are thereby more and more enriched.

4. That when a large quantity of lime is laid on such land, and ploughed down deep, the same effects

will not be produced, whether in respect to the permanent fineness of the pasture, its gradual amelioration by the dung of the animals pastured on it, or its fertility when afterwards in tillage. On the contrary, unless the surface is fully mixed with lime, the coarse grasses will in a few years regain possession of the soil, and the dung thereafter deposited by cattle will not enrich the land for subsequent tillage.

Lastly. It also appears from what has been stated, that the four shift husbandry is only proper for very rich land, or in situations where there is a full command of dung. That by far the greatest part of the land of this country requires to be continued in grass two, three, four, or more years, according to its natural poverty; that the objection made to this, viz. that the coarse grasses in a few years usurp possession of the soil, must be owing to the surface soil not being sufficiently mixed with lime, the lime having been covered too deep by the plough.

PLANTING SWEET POTATOES.

Bartram Botanic Garden, March 8, 1830.

J. S. Skinner, Esq.

Sir,—In looking over the last year's file of your invaluable paper, I observe, in No. 2, a writer over the signature of "Tyro," gives an account of his mode of raising Sweet Potatoes from sprouts; and in No. 5, Mr Jeffreys gives the result of his experiment made in a different way. A better mode than either, was introduced by the late Joseph Cooper, of Camden, New-Jersey, more than forty years since, and has been practised universally by the farmers in that state, who bring thousands of bushels of sweet potatoes to the Philadelphia market.

An account of Mr. Cooper's plan is given by Dr. Mease, in his edition of Willich's Domestic Encyclopædia, article *potato*, published in the year 1803. A new and improved edition of this work was published a few years since, by Professor Cooper, of South Carolina.

Respectfully, I am, your obedient servant.

Robert Carr.

[The following is the plan of Mr. Cooper, referred to by Mr. Carr, which we copy from the Domestic Encyclopædia:]

"Mr. Cooper plants his seed potatoes in a hot bed, and cuts off the sprouts, and plants them in their destined spots in the field. Three or four sprouts are placed in one hill. The advantages of this method are, that the potatoes are raised at a more early period than in the old way, much seed is saved, and the great trouble of weeding avoided; for the sprouts grow so fast, that they suffocate all rising plants in their immediate vicinity."

[The Editor of the American Farmer would recommend this plan as highly worthy of a trial, especially to cultivators of the middle and northern states. Sweet potatoes are generally so long in vegetating that the best part of the season has passed away before they make their appearance above ground. This causes their late appearance in market.]

Food for Oxen and other Cattle.

Every traveller who passes Alsfelt, a little town between Frankfort and Wiemar, remark the beauty of the oxen employed in agriculture in that neighbourhood; and yet are only fed on straw and roots, straw being the only fodder raised in that part of the country. It is prepared as follows:

The straw is cut very small by the chaff-cutter; it is then put into a caldron, mixed with potatoes and carrots, and boiled till it forms a kind of jelly. This, mixed with a sufficient quantity of water, is served in due portions to the beasts. The animals so fed require no water, and so well do they thrive on this mess, that they are, notwithstanding the summer labour, ready for the butcher at the end of the year.—*Jour. de Soc. Agro Practiq.*

LARGE CATTLE.

Our citizens on several occasions recently have been treated with the sight of fat cattle of extraordinary size; and we have never known our market so plentifully supplied with good beef as it has been throughout the present season. So much for the enterprise of our butchers! Our object, however, is not so much to compliment those meritorious purveyors, as to make mention of two mammoth beeves—the one a *London*, the other a *Virginia* ox.—England against America, (as the sportsmen of the pit say,) and let us see who beats!

The *London Times* states that the Bradwell ox exhibited at the Horse Bazaar in January last, weighed between four and five thousand pounds, was 17 hands high and nearly 11 feet in length. On the other hand,

The *Charlestown (Jefferson County) Free Press* of Wednesday last contains an advertisement of Mr. *John Yates*, offering for sale an ox, described by certificate as follows: "Length from the extreme of his nose to the end of his tail, 14 feet 8½ inches, (nearly four feet longer than *John Bull's Ox*,) his girth 8 feet six inches; his height to the top of his shoulders, 5 feet 8¼ inches,"—and still growing!

Will the philosophers of the Buffon School contend after this, that *all animals degenerate in America?*

[*Virginia Paper.*

IMPORTATION OF CATTLE.

In order to show the extent of the intercourse between Ireland and Liverpool, we have been at the trouble of casting up the weekly returns of the importation of cattle into this port; but as some of the numbers of our volume are missing, and others do not contain the returns, our estimates will fall considerably short of the actual amount. There is a deficiency of five weeks altogether, which on an average will make the returns about one-twelfth less than they ought to be. With the exception of these five weeks, the following are the numbers of the cattle imported from Ireland during the present year:—cows, 45,541; calves, 10,358; sheep, 87,240; lambs, 23,454; pigs, 153,000; horses, 491; and mules, 165.

[*Liverpool Mercury.*

HORTICULTURE.

(From the Vine Dresser's Manual.)

PYRAMID TRAINING.

In the view of rendering the cultivation of the Vine less laborious and less costly and more ready and productive, a great many French vine-growers, following the example of those of Baden, and for one instance M. C. B. Prost, of Andelau, near Strasburg, rear the vine in Cones, or to say better, *Pyramids.* This method is one which merits being well known. I shall therefore enter into the closest possible details, to render the manner of it clear from first to last.

After having marked out the ground in parallel lines 8 feet apart, there must, the first year, be set checkerwise along the lines, small stakes 8 feet apart also. Cutting from the south, (or from whichever aspect you intend the vineyard to have) you then trench the ground, opposite each stake, in oblong squares, 2 feet long and 1 foot broad, and, according to the depth of the soil, from 18 inches to a foot in depth; the ground lifted out is heaped beside the stake, and serves, at a future period, to lay over the roots. These trenches should be thoroughly riddled of pebbles or stones, which in the end, would cause trouble in setting out the props.

The young vines, early in autumn, are to be set out in these sloping trenches, without any previous digging or disturbing of the soil; the roots spread out without confusion, the stalk near at hand to the stake, and the first eye, counting from the roots, 4 inches lower than the surface of the ground. Not a root should be cut or shortened, unless it has been broken and damaged. The strongest stem or stake is the only one to be left outwards; all others must be laid down as if they were roots. These small trenches are then loosely filled with the earth that had been removed from them, as the eyes of the plant will thereby run less risk through the winter.

This manner of setting out young vines allows the roots a full chance of penetrating the soil in every direction, and the heat of the sun reaches them gradually and more thoroughly. In the spring as soon as the weather is favourable, the earth should be cleared down a little from the young plants, so as to lower the level of the soil collected about the stake, and the stems or branches upon the main-stem are to be pruned; only one good eye is left; the knife is laid aslant, and the wood is cut sloping backwards opposite to the eye that is kept, and about the third of an inch above it. The shoots as soon as they grow long enough should be tied to the stake; there should not be allowed more than two to each vine.

The following year, these two shoots have now become woody stems; they too are pruned down to a single eye. But should there have been only one sprout, the pruning-knife must leave upon it two eyes. From these, there will, accordingly, be two shoots, and when they are 18 inches long, they must be topped, and tied; the wood by this, becomes the stronger.

In the spring of the fourth year, which is when the vine buds for the third time, the posts are to be set up where the stakes stood. The two stems are then to be pruned, one to 5 and the other to 6 eyes. They are to be turned spirally round their prop, both in the same direction, leaving about 3 or 4 inches interval between each twist. Each of the stems are to be tied fast. The two uppermost shoots also, are tied, and topped when they are large enough. Some fruit is borne this season. As for the posts they should be round, strong, straight, 6 inches in thickness and 9 feet in height; of locust for dry, light soils, and chestnut or heart of oak for others. The end that is put in the ground should be thick painted with melted pitch. In the fifth year the pyramids begin to take a form; according to the taste, they may be made triangular, square, five or six-sided, but a circular form is preferable; having no saliant points it is not inconvenient like the others. The two uppermost stems are pruned as before, and with them, the spiral, always in the same direction, is continued. The other stems, which are called *side-runners,* are cut down to three eyes and are left gadding.

When the blossom has fallen and the berry is moulded, the shoots on the side-runners are nipped or shred down to six eyes. They are kept short to allow the vine a free circulation of the air. The uppermost shoots are topped also and tied as before.

At this time the vine which has not more than one eighth of the height, and scarcely a sixth of the breadth which it has yet to attain, furnishes already from twenty to thirty clusters; that is to say, it produces as much as a vine, kept in the ordinary way, that has its full growth.

In the sixth year the pyramids begin to ascend, and look shapely. The two uppermost sprouts are pruned as the year before, one down to 5 eyes, the other to 6; and the spiral is continued; care being taken to wind and bind them before the buds begin to show out, not to risk breaking them off, and spoiling the regularity of the cone. The last year's sprouts on the side-runners are now cut down to 4 eyes; if there are lateral sprouts on these again, they are not surpressed, but according to their strength are left with 1 or 2 eyes at most. The uppermost stems are tied up and topped when too long; this operation is performed when the berry has set. The vines, this season yield, from thirty to sixty clusters a piece.

In the seventh year, all the same processes are performed, the same as the preceding year; and from fifty to a hundred clusters are gathered from every vine.

During the eighth and ninth years, the same attentions are given until the spiral has reached the top of the post. From this time forth, whatever surmounts the post is to be pruned down every spring, while the side-runners are to be allowed a little longer than before. The diameters of the base and of the summit, should be in the proportion of two to one, or three to one in places exposed to the force of the winds. There need be no anxiety about the too great spreading of the outer circumference; if determined to prune it into shape, allow the wood time to strengthen, and proportion the clipping as the side shoots become firm and stout. But in no case must there be more than two eyes left on a side shoot; even some of the side runners, and at any rate some of the side shoots should be thinned out, if they are too numerous and crowded; without this precaution they will reciprocally weaken and stifle each other. A vineyard of 2000 stocks trained at the above manner, and thinned in the fall, in cool years, of those leaves which hide the sun from the clusters, yields yearly 26,000 gals. of wine; while on the other hand, 6000 vine stocks trained in the ordinary way produce in common seasons only from 780 to 1300 gallons, and in the very best seasons only about 2600 gallons.

Cow Cabbage, or Cesarean Cole.

Having resided in this island about twenty years, I have had opportunity of appreciating the great advantage this variety of Brassica is to the small farmer, as well as to the large one, and will, with your permission, give your readers a brief account of its culture and uses. The seed is sown from about the 20th August to the 1st of September, in a good soil, and planted out from November, to January, and February in succession, at from twenty to thirty inches distance, in a good, substantial, well-manured soil, as no plant is more exhausting, or requires a better soil; but perhaps, no one plant produces so large a quantity of nutriment during its period of vegetation. About the month of April they begin (from the first crop) to strip the under leaves, cut them in small pieces, mix them with sour milk, bran, or other farinacious substances, and given them as food to ducks, geese, hogs, &c. During the whole summer they continue to strip the plant of its leaves, until it attains the height of from six, to twelve feet; and if a scarcity of herbage prevails, the leaves form an excellent feed for cows and oxen, with alternate feeds of hay and straw. The tops and side shoots are excellent at table during winter and spring.

The longest of the stalks are frequently used to support scarlet runners and other French beans, and as cross lathing for thatched buildings, where they will last for a half a century, if kept dry, for the latter purpose.—*Bernard Saunders, Island of Jersey,* 14*th April,* 1829. *Gardener's Magazine.*

FOOD FOR SILK WORMS.

Dr. Sterler, a member of the commission appointed for improving the production of silk, and Botanist to the Royal Academy of Scieoces at Munich, has succeeded in discovering a kind of food for the silk-worms, which will replace the use of the mulberry tree. This too, it is said, the worms prefer, and it renders them less subject to disease. Specimens of the silk have been presented to, and received the approbation of his Majesty. Great advantage will result from this discovery. The name of this new food is not given.

REMARKABLE APPLE TREE.

At one of the recent sittings of the Royal Society of Emulation at Abbeville in France, an account was read by Mr. Tillettee, a botanist, of an apple tree forty years old, at St. Valery, which, owing to the imperfect organization of its blossom, had never borne fruit until last year: when the idea of impregnating the bloom with the pollen of the blossoms of other trees was entertained and put in practice. All the blooms so treated produced fine fruit; while those which were not brought in contact with the blossoms from other trees remained, as formerly, entirely barren.

Extraordinary Produce of a Pea.

Four or five ordinary land peas, of the species termed Gray Hastings, having been in spring 1829, dropped by accident into a plot of onions, in the garden of Mr. Williamson, in Sunnyside, Parish of Hamilton; they all grew luxuriantly, and some of them branched into several stems. One of them in particular sent out six stems or grains from one root, and these put forth, in all, 391 blossoms, of which 105 never came into pod; of the rest, 169 well-formed pods produced 771 completely ripe peas; and 126 pods formed peas, but none of them ripened. If the whole blossoms had come to perfection, at the rate of the 160 that ripened their seeds, the produce of this pea would have exceeded 1800 peas.

RURAL ECONOMY.

HYDROPHOBIA.

Wilmington, Delaware, March 10, 1830.

Esteemed Friend,

I observe in the American Farmer of last week, some remarks on the hydrophobia and the certainty of a cure by the timely use of *chlorine,* which I have no doubt of, as its powerful effects in neutralizing poisons in other cases are well known.

The dreadful disease of hydrophobia cannot be too cautiously guarded against, and a timely application to the part bitten, I am fully persuaded is the most certain to counteract the virus deposited by the rabid animal. I am also led to believe that the poison remains local longer than we are aware of; having had various cases of animals bitten, and where symptoms on the approach of the disorder were very different; though some particular indications were uniform in most or all of them; but the actions very different.—It is generally supposed that there is a great aversion to water; it may be, but not so universal as imagined. I knew of two cases where dogs that took to running with madness took the water voluntarily; one of them swam to a boat that was passing thirty or forty yards from the shore, with two boys in it, who seeing him on the bank running as if lost, called him, and he jumped into the water and swam to them; they lifted him in and brought him home with them to my house; he bit my house dog, a cow, and a hog, in a few minutes; continuing with the boys about the stable, he bit a horse, that was coming out and put his nose down to smell, being blind; he took hold of his nose, and the horse hoisted him off his feet by suddenly lifting his head, being a small sized dog. All this past in the forepart of the day.—In the afternoon one of my neighbours called to know if a mad dog had been there, and described the same dog as having bitten several animals that morning before he reached my house; he had passed by me but came back in the boat, as related.—I then took the alarm and was desirous to secure him, to prove the fact of his madness; ordered an open headed hogshead to be provided, and went to the stable in search. I found him laying coiled up in the entry passage; as soon as I opened the door he looked up, and the glare of his eyes, of a shining green cast, convinced me of his condition. I took a suitable stick in one hand and a rope in the other, and advanced slowly and cautiously to him, (as they are easily frightened in that disease,) tied the rope round his neck, led him out and stood waiting for the vessel to be ready; he kept snapping the rope that I held him by until he bit it off, and run and hid himself under an oven near the dwelling house.—I got a piece of meat, called him out, and gave it to him; while he was eating it I caught him fast by the back of his neck and carried him to the hogshead and covered it securely; he was immediately attacked with spasms, and would bite every thing that was put near him, and before next morning died with every symptom of hydrophobia. In about nine days after, the hog died with madness, and after working the horse about a week, I cut the piece out, being in a fleshy part of the lip—the horse never was affected while I kept him—perhaps a year after, I parted with him. The cow was milked and the milk fed to a calf about two months, when it was used in the family again with that of other cows, not being suspected at so late a period; she was milked one morning as usual, and before night was terribly affected with madness, and was put out of misery as soon as discovered. The dog was also killed before he was affected.

I have no doubt that taking the part away saved the horse, though a week or ten days after the bite happened.

I once had a hog that died with all the symptoms of hydrophobia, seven or eight months after being bitten by a dog that was in a rabid state, and several cattle at different periods with various symptoms.

A dog seldom runs above two or three days dangerously; he soon becomes stiff in the jaw, and can no longer bite. The eyes assume a glassy shining look, but otherwise vary; generally timid, though he has a propensity to snap, but not to pursue like an angry dog; easily frightened or intimidated if approached in a hasty manner—toward the last he abounds with saliva, in which the virus is mingled.

I never knew an instance of the eating of the flesh of a rabid animal to infect the subject; and the instance of the milk of my cow that was used the same day that symptoms of hydrophobia were exhibited seems to strengthen that opinion.

But it is all important if chlorine will counteract that poison, to be prepared with a portion in every family, and more especially as the disease is local for a sufficient length of time to effect a cure, which is my belief fully. C. Kirk.

Brandywine, 8th of 3 *m.* 1830.

P. S. I might add another case that happened a few days past—my son had bought three pigs about two months ago, and put them into a close pen near the mill door, and had fed them until they were in a good condition for market. One of them took sick, when I happened to go to the mill they had taken it out of the pen and were giving it something to relieve it.—I immediately saw symptoms of hydrophobia, and told them it was useless; to put it in a pen alone; a few hours after it died; the spasms had commenced before it was taken from its companions, and never ceased until death relieved it. This pig must have been bitten before my son penned it up, as no chance could have occurred afterwards; the man from whom they were purchased had them running at large; the other two are not yet sick, and perhaps never may be, as we do not know that they were bitten.—I am ready to believe the disease originates in the dog and fox, and perhaps the wolf. I have also had some reasons to believe that privation of food, and then a glut, with that of a putrid quality, may possibly have a tendency to produce this direful disease.

BEET-ROOT SUGAR.

The manufacture of sugar froom beet-roots is still making way rapidly in France, with almost daily improvements. Within the last fortnight (Nov. 1st) a manufacturer near Paris has taken out a patent, by which he undertakes to diminish the time hitherto required for completing the process at least one-third.

Cure for Ring Bone and Spavin.

Take 6 oz. of the oil of origanum, 2 oz. camphire, and 2 oz. of mercurial ointment, mix them well together, and rub the place affected two or three times a day, keeping the horse dry.

A Subscriber in Frederick County.

LADIES' DEPARTMENT.

FAMILY GOVERNMENT.

In perusing the Fourth Annual Report of the Prison Discipline Society of Boston, the attention of the writer of this was particularly arrested, by the facts and observations it contains, on the subject of Family Government. "Among the causes of crime," says this valuable Report, "the neglect of family government stands next to intemperance: it is, in fact, not unfrequently the cause of intemperance. Youth, when unrestrained and neglected by their parents, find their way to the tavern and the grog-shop; and others, whose parents have attempted unsuccessfully to govern them, have not become abandoned to vice, till they forsook their father's house. It is the confession of many convicts, that the course of vice which brought them to the prison, commenced in disobedience to their parents or in their parents' neglect. And it has already been stated that about sixty, which is one third of the whole number of the youth who have been committed to the House of Reformation at South Boston, were committed for being stubborn and disobedient. And among old convicts, for the higher crimes, especially those which were the offspring of unrestrained and sudden passion, there is evidence from prisons, that they who have been guilty of such crimes, were never subject to family government. And there is further evidence, in a few cases, where parents and children have been found together in the same prison, that the father's house was a place of entire discord, in regard to every thing good, and of harmony only in devising and executing mischief: and in one instance, at least, a son, who made sport on his way from the prison to the gallows, where he was soon to lose his life, traced his dreadful end to the instructions of his mother. Let parents, then, govern their children, and children obey their parents in that which is right.

These statements, of the truth of which there can be no doubt, are really appalling, and ought very seriously to impress all those who are parents and heads of families, with an awful sense of the responsibility which rests upon them. Let it be again repeated: "It is the confession of many convicts, that the course of vice, which brought them to the prison, *commenced in disobedience to their parents*, or *in their parents' neglect*." It is believed that, in a large majority of cases, the most hardened criminals could easily trace to these sources the commencement of their career of folly and of crime. Is it not, then, the incumbent duty of parents to use every means within their power, to protect their tender offspring from the corrupting influence of bad example; to guard them, when young, against forming evil associations, and to restrain them on every occasion, where restraint is necessary? Parents who are thus diligently engaged in the discharge of the important duties of their station—who are concerned to bring up the lambs committed to their care, in the nurture and admonition of the Lord, will receive a rich reward for their faithfulness; and not only their children, but their children's children will have reason to bless them for their oversight and care.

William Penn, who had a profound knowledge of human nature, and was well qualified to administer advice, made this excellent observation: "If thou wouldst be easy and happy in thy family, above all things observe discipline. Every one in it should know their duty, and there should be a time and a place for every thing." If a wholesome discipline were established and maintained in families,—if parents and those who have the care of youth, kept their proper places, and were enough concerned to train up the child in the way he should go, the salutary effects would soon be obvious; and the disorder, the misery and the crime, originating in parental neglect, and youthful disobedience, would not be so frequently presented to our view. Surely the painful and affecting statement contained in the above extract, every way confirmed and corroborated as it is by experience and observation, ought to alarm those parents who are lamentably careless and indifferent, in relation to this most interesting and important subject. What can they suppose will be the consequence of allowing their children to throw off all subjection and restraint, and, as is frequetnly the case, to take the reins of government entirely into their own hands? When such is the disordered state of affairs,—when by their own imprudence or criminal neglect, parents have lost all right, influence and authority in their families, however it may be lamented, it is not at all surprising that their children should grow up in ignorance, licentiousness and folly,—that their evil habits should grow with their growth and strengthen with their strength, until they become a burthen to the public and a disgrace to themselves, to their families and friends. They are prepared to pursue with avidity the path of crime upon which they have unhappily entered; they advance with rapid strides from one degree of guilt to another, till, sooner or later, the strong arm of the law arrests them in the midst of their criminal career, and they are plunged at once into the very vortex of misery and ruin; perhaps ending their days on the gallows, or in the penitentiary; and bringing down the gray hairs of their parents with sorrow to the grave.

That this is not a mere picture of the imagination, the facts detailed in the Boston Report abundantly prove.

While so much is said on the subject of intemperance, and the whole community would seem to be awakened to a just sense of the enormity of the evil, and the misery which it invariably entails on individuals and families, let us not overlook and disregard that which has been proved to be one of its principal causes. In the present day, and in a crowded city like ours, temptations to evil are multiplied, and presented to the youthful mind in every variety of form; and it requires the greatest vigilance and care, even on the part of judicious parents, to prevent their children from contracting associations, and forming habits, the tendency of which would inevitably be, to lead them to the haunts of dissipation, of folly, and of vice. In the evening, instead of allowing their boys to run at large in the streets, how much better would it be for the parents to gather them into their own fireside circle, or occasionally go with them to hear the useful sciences familiarly illustrated and explained The youth in many of the countries of Europe would most gladly avail themselves of the facilities which are here enjoyed for the cultivation of science, and yet it is astonishing how few of *our* young people, comparatively speaking, are disposed to make use of those opportunities of acquiring knowledge, which are placed so easily within their reach, and afforded at so cheap a rate. Let parents teach their children to be industrious. Moderate exercise and labor will have a wonderful tendency to preserve both the mental and physical functions in a sound, vigorous and healthy state. Embrace every suitable opportunity to imbue their tender and susceptible minds, with the precepts of piety and virtue. Inure them to habits of just thinking. Teach them, early, to set a true value upon the dignity of human nature. Furnish them with well-chosen books, which will serve to interest and instruct; to develope and strengthen the intellectual faculties. Such a course of discipline, It is believed, would not fail to be attended with the happiest effects. Parents would then be a blessing to their children; and the children would honor and obey their parents. The disposition of the child to run about the streets in search of pleasure, and to spend time foolishly, would be taken away; and, in its place, a taste would be received and cultivated for truer and more refined enjoyment. Home would then have its delights; it would indeed possess the most powerful attractions, and both parents and children would increasingly feel, that their happiest moments, their sweetest and most substantial joys were to be found in each other's society when seated together around the evening fire-side. In the contemplation of such a scene of pure and undisturbed enjoyment, well might the poet rapturously exclaim:

"Domestic happiness, thou only bliss
Of Paradise that has survived the fall!
Though few now taste thee unimpaired and pure,
Or, tasting, long enjoy thee: too infirm
Or too incautious to preserve thy sweets
Unmix'd with drops of bitter, which neglect
Or temper sheds into thy crystal cup:
Thou art the nurse of virtue, in thine arms
She smiles, appearing, as in truth she is,
Heaven-born, and destined to the skies again."

[*Baltimore American.*

MISCELLANEOUS.

NATURAL HISTORY.

[The following was written for the "*American Turf Register and Sporting Magazine*," but was deferred as a sketch on the same subject was then in type for that journal. We are happy to give it to the readers of the American Farmer, who may expect many papers on natural history worthy of their regard, and useful and entertaining to their children.]

THE DOG.

The history of the dog is enveloped in obscurity. The most persevering researches of the learned have not been able to trace him to an original, and opinions are yet divided between the wolf and the chacal, and according to some writers the fox, as the stock from which our domestic dog is derived. We do not expect to throw additional light on this intricate and interesting subject. Our object is merely to circulate some general facts in his history, and to excite to observations upon the changes, so singular and so unexampled in this animal, which he undergoes on a change of climate.

All of the genus *canis* are carniverous animals, and the domestic dog, it is well known, from repeated experiments will not live long if deprived of meat.

The genus is described as having, "three false molars above, four below, two tuberculous teeth behind each carniverous one, the first of which, in the upper row is very large. The upper carniverous tooth has but a single small tubercle within, but the lower has its posterior point altogether tuberculous. Their tongue is soft, the fore feet have five toes, and the hinder four.

The foregoing is the general description of the genus. The species called the domestic dog, "is distinguished by a curved tail, and varies infinitely in size, form, colour, and in the quality of its hair.

The wolf has its tail straight, varies in size, colour and ferocity. But these variations are very limited in comparison to those of the domestic dog.

The chacal, or golden wolf, is smaller than other wolves of Europe. It inhabits a great part of Asia, and Africa. Lives in troops, hunts after the manner of the dog, and seems to resemble the domestic dog more than any other wild species, in conformation and facility of being tamed.

Naturalists have more generally divided between the wolf and the chacal, as the original of the domestic dog.

The dog, it is well known, will breed with the wolf, and also with the fox. At least the stories of these facts are pretty well authenticated, but whether the issue of such union is prolific or not, has not been well ascertained. If this should prove to be the case, we might then consider these animals as of one species; for according to Flemming, the unerring rule, whether animals are or are not of the same species, is that their issue are or are not prolific.

The dog undergoes so many and such great changes, from climate and food, that he at times is made to represent either of his supposed originals, and which I have no doubt has given rise to many of the suppositions about him. We have it well authenticated that the shepherd's dog transported into a temperate climate, and among a civilized people, in England, France, or Germany, for instance, loses its savage aspect, its pricked ears, its rough, long, and thick hair, and from the influence of climate and food, will become either a French matin, an English mastiff, or a hound. These last, whether stag hound, fox hound, or beagle, transported into Spain or Barbary, in which countries there is a tendency generally, in the hair of all quadrupeds, to become soft and long, will be converted into the land spaniel and water spaniel, of different sizes. And these brought back to England, change colours, and become the great and little King Charles' dog. The grey matin-hound transported into the north becomes the great Danish dog, and this sent to the south becomes the grey hound of different sizes. The same transported into Ireland, the Ukrane, Tartary, Epirus, and Albania, become the great wild dog, known generally as the Irish wolf dog. The Turkish dog without hair is only the Danish dog, removed to a warm climate. In some countries the voice of the dog is materially altered, in others he becomes entirely silent; and warm climates generally change more or less their instincts and forms.

From these various races, the effect of climate and food, mongrels, single, double or triple, to an infinite variety may be bred, which readily accounts for the many varieties passing daily before our eyes.

It is to be regretted, that more attention has not been paid in our country, to the changes which the domestic dog undergoes. That is, the imported races, and not those which have become acclimated and fixed in their peculiarities. In my own observations I have frequently observed that the setter, imported from England, loses after a few generations his heavy coat of hair, and his stubby form, becoming a taller, more gracefully formed and lighter coated dog. And where every possible care has been observed to preserve the race pure, I have known some of the issue in time to be as smooth as pointers, with merely a slight fringe of hair under the tail and behind the thigh. They are known by the name of smooth setters. Their hair is coarser, and their hides thicker than the genuine pointer, they take the bush or water with indifference, and appear to preserve all their fine instincts for hunting without deterioration. I have also been disposed to consider them more hardy and longer lived than either the pointer or rough setter.

This effect of our climate to elongate, if I may so express myself, the forms of some animals, I have sometimes thought was visible in that of man himself, and often as early as the first generation from the emigrant. I have no doubt that the Americans are the tallest race of civilized man.

Among the never failing characters of the domestic dog, throughout his endless varieties, is that his tail has always a curve, and if there are more colours than one in it, the end is always white. No wild race of dogs has yet been found, to which the domestic dog might be traced. He appears to be among the most early and most complete conquests of man, and known only as his companion and friend. But there are dogs subjected to uncivilized man, which may be considered as half reclaimed, and which probably present the most correct peculiarities of the original type. These are the *Dingo* of New-Holland, the *Dhole* of India, and the dog of our South American, and North American Indians.

But even these dogs may be called domesticated. They are the subdued attendants of their masters. We know not the dog, and cannot therefore reason upon him as a savage and unsubdued animal. In several instances in which wolves have been taken young, they have readily become tamed, and shown many of the remarkable properties of the dog. And so also with the fox. And yet scientific investigations of physical peculiarities, justify their being classed as different species from the dog.

We wish the experiment with the wolf were thoroughly tried. To breed between it and the dog, and then ascertain if the issue would be prolific with each other and the dog. We have heard anecdotes tending to this proof, but the facts appear to have been carelessly observed, and the inference made to depend too much upon external resemblance.

Look at that slut's ears, said a gentleman to me one day, she is certainly the issue of a fox, and there was one, half tamed, in her neighbourhood when the mother was in heat. Look at her pup, I replied, woolly like a bear, and born without a tail (which were facts,) he certainly must have been begotten by a bear, although I could not add that there was one at large, in the neighbourhood when the mother was in heat.

And so it is, that accidental resemblances of parts, have been too frequently assumed as unequivocal evidence of a mixture of races, and any probability however remote, of such a mixture, at once accepted as a fact.

I have seen the domestic dog, unquestionably without foreign intermixture, possessing so completely the head of the wolf, that a scientific zoologist only could detect the difference. Now transport one of these dogs to the frontier, and he at once passes for part wolf, and in all probability may be so passed off with the county court for the benefit of the wolf premium.

Although in his teeth, organs of motion, generation, and of sense, the wolf entirely resembles the domestic dog, he is not as easily tamed as the chacal, whose organization is also entirely similar. And when the domestic dog has become wild, he has been found to assume the habits and mode of existence of the chacal. From these circumstances one might infer that our favourite originated from the chacal, if it were not for the insurmountable objection arising from the excessively offensive odour which is exhaled from these animals. Too offensive for human endurance, and sufficient to exclude them forever from the domesticating hand of man. "The presence of a single chacal would be sufficient to poison a whole habitation."

I do not myself believe the dog to have originated from either of the stocks mentioned, but to have been a wolf, or jackall, or fox, as you please, differing from any now found in a wild state, with propensities peculiarly adapting him to the state of domesticity and servitude in which he is now only to be found.

The Newfoundland, one of the most interesting of his race, is considered a native of that country by the best authorities. If this is the case, he presents the unique spectacle, of a completely subdued dog, and of the most civilized propensities, the property of a savage people. The earliest notices of him, shew him to be the same noble and sagacious animal which he is now. We wish his history were better known.

A.

Water-proof Cloth.—A saturated solution of water, sugar of lead, and alum, being prepared, the cloth should be immersed in the fluid for a few hours; on withdrawing it, and allowing it to dry, it will be found impervious to rain. The cloth should afterwards be hotpressed.

LAFAYETTE.

The last number of the North American Review contains an interesting article on Lavasseur's *Lafayette in America*, from which we extract the concluding paragraph.

There are those who deny to General Lafayette the name of *a great man*. This is a vague phrase, hard to define, of an acceptation somewhat dependent on the circle in which it is used. Does goodness belong to greatness, and make a part of it? Who is there, that has run through such a career with so little reproach? Are military courage and conduct the test of greatness? Lafayette was trusted by Washington with all kinds of service; the laborious and the complicated, which required patience and skill; the perilous which demanded nerve; and we see him keeping up a pursuit, effecting a retreat, out-manœuvring an enemy, and heading an assault, with equal reputation and success. Are the willingness to meet tremendous responsibility, and the cool and brave administration of gigantic power, proofs of greatness? Lafayette commanded in chief the national guard of France, three millions of bayonets. Is the fortitude required to resist the urgency of a multitude pressing onward their leader to crime, a trait of true greatness? Behold Lafayette, when he might have been the chief, becoming the fugitive of the French revolution. Is the solitary and unaided opposition of a good citizen to the pretensions of an absolute ruler, whose power was as boundless as his ambition, an effort of greatness? Read the letter of Lafayette to Napoleon Bonaparte, refusing to vote for him as consul for life. Is a voluntary return, in advancing years, to the direction of affairs, at a moment like that when the ponderous machinery of the French empire was flying asunder, stunning, rending, crushing, annihilating thousands on every side, a mark of greatness? Consider his calmness at the tribune, when allied Europe was at the gates of Paris, and Napoleon yet stood in his desperation and at bay. And add to all this the dignity, the propriety, the cheerfulness, the matchless discretion of his conduct, in the strange, new position, in which he was placed in this country. Those who deny such a man the mead of greatness, may award it if they please, to their Alexanders, and Cæsars, their Fredericks and their Wellingtons.

(Items from late English papers.)

During the American revolutionary war, 80 old German soldiers, who, after having long served under different monarchs in Europe, had retired across the Atlantic, and converted their swords into ploughshares, voluntarily formed themselves into a company, and distinguished themselves in various actions on the side of liberty. The Captain was nearly 100 years old, and had been in the army 40 years, and present in 17 battles. The drummer was 94, and the youngest man in the corps on the verge of 70. Instead of a cockade, each man wore *a piece of black crape*, as a mark of sorrow for being obliged, at so advanced a period of life, to bear arms "But," said the veterans, "we should be deficient in gratitude, if we did not act in defence of a country which has afforded us a generous asylum, and protected us from tyranny and oppression."

Whether a fish called the samlet ever becomes a salmon or not, is a question not yet satisfactorily answered. I think I could give circumstantial, if not positive, proof that it does. William V. Ellis, Esq., of Minsterworth, near Gloucester, who has a very extensive fishery on the river Severn, is of opinion, from information received from fisherman under his direction, that the samlet *does* ultimately become a salmon; in confirmation of which, he says, one of the fisherman thrust a wire through the tail of a samlet, and in process of time (notwithstanding the corrosion and action of the fresh and sea-water on the wire) the same was again taken with the wire in its tail after that it had become a salmon.

Pig-Killing Extraordinary.—Frederick Green, governor of the poor-house at Brewood, in this county, last week made a wager of ten pounds that he would kill, scald, and well and completely dress, open, &c. eight pigs in four hours, without any other assistance whatsoever during the process, than that of having the hot water conveyed to the scalding tub as he wanted it. He performed his task in the extraordinarily short time of three hours and 56 minutes, to the admiration of all present. One of the above pigs weighed 380 lbs., and none were of less weight than 240 lbs. They were all killed in a butcher's slaughter-house, and Green had the advantage of the wind and windlass, to get the pigs out of the scalding tub.

[*Staffordshire Advertiser.*

THE FARMER.

Baltimore, Friday, March 19, 1830.

☞ There are few subjects on which people are more generally ignorant, than on that of the diseases of the horse, especially subjects involving the same amount of property and enjoyment. In general, when a horse exhibits symptoms of disease, some popular remedy,—compounded by quackery in the cauldron of ignorance,—is poured down his throat, and if either luck or nature befriends the poor animal so that he recovers, it is well; if not, he is abandoned to his fate or left to the tortures of further empiricism till he dies. There is scarcely a single popular remedy for the diseases of the horse, with the nature of the ingredients of which the person who administers them is acquainted—all they can say is,—and even this merely by guess,—that such a medicine cured such a horse of the botts, &c., but they cannot say why or wherefore. In fact, quackery in Farriery, is more blindly followed than in medicine, and with more ill consequences, excepting so far as the value of the life of a man, and that of the horse makes the difference, which is not unfrequently in favour of the latter. As a powerful means of subverting this system of quackery, we are pleased with the republication of *Hind's Farriery,* a late and excellent English work, which has just issued from the press of John Grigg, of Philadelphia, with additions and improvements particularly adapted to this country, by T. M. Smith, veterinary surgeon. The work gives the anatomy of the horse in a perspicuous style, with plates and cuts, shewing the situation of the internal parts, the bones, &c. The diseases are clearly described by their symptoms, with various directions for their prevention, and the most approved remedies pointed out. We cannot too highly recommend this book, and therefore advise every owner of a horse to obtain it. It is for sale at the bookstore of G. McDowell & Son, Market street.

☞ English papers have been received from London, to the 10th of February—all accounts agree in representing the distresses of the manufacturing and agricultural classes to be severe and universal beyond example, in the history of that great, but unfortunate nation. The demands upon the government, for some measures of immediate and radical relief, as is stated in all the private letters received here, proceed from all classes and conditions, except, perhaps—the public creditors. How it will end it is impossible to say; the history of the past puts all prediction at defiance. How many, from Napoleon the great, down to the veriest tyro in politics, have foretold the bankruptcy and overthrow of the British government?—Yet there it stands, still participating in, if no longer controlling the policy of all Europe. But where there is ever accumulating debt, increasing extravagance of the aristocracy, with every day some new and extensive *substitution of artificial for human labour,* with, consequently an awful reduction in the means of subsistence among the labouring classes, and of course, an addition to the list of paupers in a compound proportion, there must needs be *something done?* It is not a defective twig, or sprout, here and there, that may be pruned away, leaving the great mass to flourish in more fruitful vigour; every limb of the nation, every branch of public industry, appears to be withering under some corrupting taint, and nothing it would seem remains, but to *head it down,* as the farmer would say, and trust to the strength of the root to throw out an entirely new stock.

Patriotism and a proper estimate of the national exigency, would appear to require at the hands of the ministry that *they* should set an example of firmness and self devotion; and assuredly if any man has weight of character to meet and bear him through such a crisis, it ought to be the Duke of Wellington. Let the ministers come forward with a voluntary abandonment of one half of their own salaries, let them in like proportion reduce the immense amount of pensions and the public debt, and in some measure also, the rate of interest on the remainder; and secure to the *people*—we do not mean the *universal* people—a fair, honest, *bona fide,* responsible representation in the House of Commons. But where are our pen and our speculations leading us? What have we to do with England and her distresses? truly it is presumption in us to theorise on the remedy for difficulties, for which so many wiser heads have not found an appropriate and adequate solution; but, to be *indifferent* to the condition of a great and gallant nation plunged to the very chin in privation and misery, with her thousands living on three half pence a day, whilst the country is redundant in the elements of subsistence; and that too our parent nation; blood of their blood, and bone of their bone, would be equally unnatural and impossible. The connections too between the countries, in science, trade, and all kinds of intellectual and civilising intercourse; constitute channels of sympathy and mutual interest, that must lead every well informed and liberal minded American to cherish a lively regard for the welfare of England.

In the House of Commons, February 5, Mr. Robinson inquired "whether any negotiation is pending between this country and the United States, with a view to the renewal of a direct intercourse between the United States and our possessions in Canada."

Mr. Secretary Peel—My answer to the hon. gentleman's question is this—that a communication has been received from the Minister of the United States on that important subject; and that this communication is still under the consideration of his Majesty's government.

In replying to an observation of Mr. Huskisson, Mr. Peel said, the hon. member had avowed his satisfaction at the speech of the American President. His (Mr. P's) was equally great, for the President's expression of amity and friendship towards this country were such as it gave him extreme pleasure to re-echo with respect to America, and he hoped that all the future competition between the two countries would be that of industry, peace and civilization!

[Old Hickory seems to have tickled John Bull's vanity to some effect; it may be imagined that the pill was not swallowed with the less avidity, for coming from the hand that smote him so desperately at New Orleans!]

The king's speech, brief and vague as usual, had been read to parliament

In the House of Commons on the same evening an address, similar to that agreed to in the upper house, and which was a mere echo of the speech from the throne, was proposed. On this address Sir E. Knatchbull moved an amendment, to the effect that the distress which existed was not "partial" but "universal," and pledging the House to adopt such measures as might tend to relieve it. After a long discussion the House divided, when there appeared for the amendment 105, against it 158, leaving a majority of only 53 in favor of the Ministers. Of these 53 not less than 28 are members of the regular Whig opposition; so that, if they had also voted against Ministers, there would have been a clear majority of three against them. Several of the 28 members who thus saved the administration from being defeated, stated, that they thought the amendment better than the address, and only voted for the latter to prevent the ultra tories gaining an advantage over the administration and possibly compelling it to resign.

These circumstances are extremely important, inasmuch as they show that it will be scarcely possible for Ministers to keep their places, unless they make some vigorous effort to relieve the country from its present distress. A large proportion of the country gentlemen, who were formerly the thick and thin supporters of Ministers, have deserted them, finding that the distress which they have themselves done so much to create, has at last come to their own doors. We believe that Ministers, unless they can raise rents and prices, which is impossible, will never be able to bring back to their allegiance the rebellious squirearchy. This agrarian insurrection would have been fatal to them the very first night, had it not been for the assistance of the Whigs.

Of continental news we really find nothing. Paris dates are to the 6th. Respecting Greece and its future Sovereign, the following is the only article of interest:

New Sovereign of Greece.—The following paragraph appears in the Gazette de France of Monday, 1st February:—"We are assured that the definitive protocol respecting Greece has been signed in London between the Plenipotentiaries of the three powers, and that Prince Leopold of Saxe-Coburg, is invested with the sovereignty of Greece."

Private letters of Wednesday's date state that an active correspondence has been carrying on between Prince Leopold and the Duke of Orleans; and it is pretty generally supposed in Paris, notwithstanding the denial of the Gazette de France, that, in the event of his becoming sovereign of Greece, he will espouse one of the Duke's daughters.

The Paris Journal du Commerce says, we are enabled to announce, from the most authentic information, that the expedition against Algiers was decided in the Council, which was held yesterday, 25,000 men are destined for the expedition, to commence in May.

Prince Leopold of Saxe Coburg is shortly expected at Paris, where the report of his marriage with a daughter of the Duke of Orleans is revived.

Liverpool Markets, *Feb.* 8.

Cotton.—In the early part of last week, the demand for Cotton was limited, and the prices of most kinds declined 1-8d. per lb. and Boweds of the new crop, which were offering rather freely, gave way about ¼d per lb. At this decline, however, there has since been considerable business done in the latter description by the dealers and spinners. The total sales amount to 12,320 bags, consisting of 8800 Bowed at 5 7-8d. to 7d. chiefly at 6½d. to 6 5-8d, for fully good fair new, 380 Orleans at 6¾d. to 7¾d. chiefly at 6¾d, to 7d. for fair to good fair; 910 Alabama and Mobile, 6d. to 6 5-8d.; 140 Sea Island, 12d. to 21d.; 70 stained do. 7d. to 10d.; of these, 500 American have been taken on speculation.

Turpentine.—There is a steady demand for this article; 1110 brls. have been disposed of, part very ordinary, at 9s. 9d. and the remainder good, but not fine, at 11s. 6d. per cwt. The only transaction in Tar is a sale of 400 brls. Stockholm at 16s. per barrel.

Liverpool, Feb. 10.—There has been no variation in the prices of Cotton since our last; the market is steady though quiet. The sales of the week are about 11,000 bales, and consist of 8,500 Uplands 6¼d for old, and 6¾ to 7d for new Cottons; 500 Alabama 6d and, 6 1-8d; 30 stained Sea Islands 7d.

Liverpool Corn Market, *Feb.* 10.

Average price of grain.—For the week ending January 29—Imperial weekly average, wheat, 66s 6d; Rye, 33s; Barley, 29s 4d; Oats, 20s 9d; Beans, 31s 4d; Peas, 34s 7d.

Aggregate average of the six weeks which regulates the Duties.

Wheat, 56s 1d; Rye, 33s; Barley, 26s 5d; Oats, 21s 3d; Beans, 31s 10d; Peas, 35s 5d.

Duties on Foreign Corn for the present week.

Wheat, 30s 8d; Rye, 19s 9d; Barley, 18s 4d; Oats, 15s 3d; Beans, 22s 9d; Peas, 16s 9d; Flour, 18s 5d.

Liverpool Corn Market, *Feb.* 8.

There was a free sale for wheat at last Tuesday's market, and prices were enhanced 1d to 2d per 70 lbs. but oats were in limited request, and ½d per bushel lower. There has since been an active speculative demand for both articles, and the market well cleared of wheat at a further improvement of fully 2d per bushel. No sales are reported in bonded grain but 2000 to 3000 bbls of flour under lock, have changed hands at 25s to 26s per barrel.

London Markets, *Feb.* 9.

The Cotton market is without briskness, prices little varied, purchases for the week considerable, prices steady. Wool at a public sale on the 3d, 228 bales Spanish, washed in the German manner on the backs of the sheep, sold at 8d to 18½d; 53 bales regular Spanish, 8½ a 16d; 55 bales German, 1s 7dd to 2s; 11 bales Odessa, 1s 8½ to 1s 11½d; 4 bales Cashmere white, 3d to 2s. They sold freely at very good prices, considering their inferior qualities; on the whole the market is improved, and the demand increasing, particularly for wools under 2s 3d per lb. the stock being very low.

☞ The Editor of the American Farmer wishes to obtain copies of the 7th and 9th vols. of that work; and will give for each, two copies of either the 1st, 2nd, 5th, 8th, or 10th volumes

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Prices Current in Boston, March 12.

Apples, best, bbl. 1.75 a 2.25 *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a 8.00; No. 2, 6.75 a 7.00. *Butter*, inspected, No. 1, new, lb. .12 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.00 a 5.25; Genesee, 5.50 a 5.75; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .62; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .7 a .8. *Pork*, clear, bbl. 15 a 16; Navy, mess, 12.50 a ——; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 25 a .33; Red do. Northern, 6; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .40 a 45; do. do unwashed, .25 a .40; do. three-fourths, washed, .32 *a* .40, do. half blood, .33 *a* .35; do. quarter, washed, .28 *a* .30; Native, washed .28 a .30; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, March 13.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .9 a .10¾; Alabama, .9½ a 11½. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4 62½ a — Canal 5.00 a 5.25; Balt. Howard st. 4.75 a 4 87½; Richmond city mills, 4.87½; country, 4.62½ a 4.68; Alexand'a, 4.50 a 4.75; Fredericksburg 4.50; Petersburg, 4.50 a 4.62½ Rye Flour, 3.25 a ——; Indian Meal, per bbl. 2.75 a ——; per hhd 13.00 a —— *Grain*, Wheat, Genesee, —— a —— Vir. 75 a 80; Rye, North, 62½ a 65; Corn, Yel. Nor. .52 a —; Barley, 68 a .70; Oats, South and North, .28 a .34; Peas, white, dry, 7 bu.—; Beans, 7 bu. 7.00 a 8 00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.25; cargo —a 4.50; Butter, N. York, .12 a .16; shipping, .6 a 10; Lard, .5 a .6; Pork, mess 11.25 a 11.75; prime 8.75 a 9.25

Prices Current in Philadelphia, March 15,

Bees-wax, yellow .21 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 8 a 9, cargo 7; *Butter*, No 1, .8 a -, No. 2, 6. a--; *Cotton*, New Orleans .10½ a .12, Upland 10. a .11, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .7 a .7½. *Flour*, sup. 4.50, fine, 4.00 a 4.25; Rye 3.00 a 3.25; Corn meal, hds. 11.00 a ——, bls. 2.12½ a 2.25; *Flaxseed*, cask ——; bu. 1.28 a ——; *Grain*,—Wheat 85 a 86—Rye .50 a.52, Corn l. c. white, .33 a .34, l. c. yellow, .35 a .36, u. c. round, .40 a .42; Oats .25 a .28, Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .6½; *Oil*, linseed, 70 a 71; *Pork*, mess, 12.00 a ——, prime 10.50 a 11; cargo 9.50. *Rice*, 2.50 a 3.00; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a —; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

GARDEN & FIELD SEEDS.

J. S. EASTMAN, at No. 36 West Pratt-street, would inform his customers and the Public generally, that he has now on hand a general assortment of Messrs. D. & C. Landreth's GARDEN SEEDS ,of Philadelphia—who have given the following information respecting their Seeds, viz:

For the information of those who may be interested and unacquainted with the fact, they beg to say, that all Seeds sold by them (with a very unimportant exception) are grown upon their own grounds: a portion of which is separated two miles; the more effectually to obviate the well known propensity in some Vegetables to commingle; and that from the time the Seeds are sown, until the crop comes to maturity, they are under their personal inspection—thus they are enabled most unequivocally to warrant them, as regards freshness and purity. In most articles of merchandise, the purchaser can form some estimate of the quality; but in Garden Seeds, it is not so—their age and variety are problems to all but the *positive grower*, to be solved only by a trial of them, at an expense of money, land, labour and time; hence a manifold vexation if unsuccessful. The *mere vender*, who depends upon foreign growth or transient purchases for his supply, though he may have exercised his judgement upon Seeds for a lifetime, yet cannot possibly avoid deception only by actual test, which requires a length of time frequently longer than the interim between their reception and the season of demand; hence a decided advantage in dealing with *first hands*.

Constantly on hand, Clover, Orchard Grass and Herds GRASS SEEDS, and a general assortment of the most improved AGRICULTURAL IMPLEMENTS, &c. &c.

THE PLOUGH.

We certify that we have tried George D. Avery's Patent Ploughs with adjusting heelpieces, self-sharpening steel points, and other important improvements, in the Chesapeake and Ohio Canal, where the ground was exceedingly hard and difficult to plough, and are convinced that they are superior to any other Ploughs we have seen. Avery's Ploughs not only do their work better, but are attended with, but a small part of the expenses required by other Ploughs to keep them in repair. Therefore, we do cheerfully recommend them to all who may want to purchase that useful implement.

WALTER W. FENLON,
LEWIS BASTEDER,
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JAMES B. GLOVER,
} Canal Contractors.

In order to bring into use his improvements, produced by many years' labor and study, the subscriber will put the price of his patent rights for Counties and States, so low that purchasers will find it very advantageous to take them, viz: from $30 to $75, for Counties, and for states from $150 to $450. Those who wish to make the Ploughs, without buying the right for a County or State, may do so by paying 30 cents on each of the smallest size, 40 cents on the middle size, and 50 cents on the largest size. Complete sets of cast iron patterns, and Plough Castings, of the best quality, can be furnished at Gen. John Mason's Foundry.

GEORGE D. AVERY.

ALMANAC.

1830. March.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 20	6	0	6	0	12	0	3	06
Sunday,...... 21	5	59	6	1	12	2	3	55
Monday,..... 22	5	58	6	2	12	4	4	40
Tuesday,.... 23	5	57	6	3	12	6	5	06
Wednesday, 24	5	56	6	4	12	8	sets.	
Thursday,... 25	5	54	6	6	12	12	7	30
Friday,....... 26	5	53	6	7	12	14	8	35

Moon—New Moon, 24th, 9h. 46m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is no change in flour, and scarcely any in grain. Wood has fallen. The prices of beef on the hoof have advanced fifty cents, in consequence principally, of about 500 head having been taken during the week, for the Philadelphia market.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 3.50 a 4.00; brown and red 4.00 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 97 hhds Maryland, 44 hhds Kentucky, 13 hhds Ohio and 6 hhds Vir.; total 160 hhds.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.37½ *a*——city mills, 4.12½ *a* ——Susquehanna, 4.12½. Corn Meal, bbl. 2.25 *a* ——Grain, best red wheat, 80 *a* .85; best white do. .87½ *a* .90; ordinary to good, 75 *a* ——Corn, white, .30 *a* 31—yellow .32 *a* .33—Rye, .48 *a* .50—Oats, .25 *a* —— Beans, 90 *a* 1.00—Peas, .65—Clover seed, 4.75 *a* 5.00—Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ *a* —— lb.—Barley, ——Flaxseed, 1.06 *a* 1.12½—Cotton, Vir. .9¼ *a* .10½ Lou. .11 *a*.12—Alab. .9½*a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21½ *a* .22; in bbls. — *a* 23½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 120*a* 140-water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.25 *a* ——— No. 2, 6.00 *a* ——No. 3, 3.75——Bacon, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* ——Plaster Paris, cargo price per ton, 5.25 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, .4.50 *a* 5.50—Pine Wood, by the vessel load, 2.12½ *a* ———Oak Wood, 2.87½ *a* ——Hickory, 3.75.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the New England Farmer.)

HEMP.

Mr. Fessenden,—Your paper of the 15th January last communicated to your readers a short notice of the exhibition, which had taken place, in front of the State House, of several loads of American hemp, grown and fitted by the Northampton Hemp Company, and which were the forerunners of many more, to the total amount of about one hundred and thirty tons, raised the last season, by that intelligent and well deserving association. Their success must be hailed with much satisfaction by the friends of American husbandry and manufactures, being a powerful step onward, which the self-capability of soil, climate, and industry of New England, offer as one of the numerous testimonies of her fast developing power and greatness. The immense sums required, since the days when Independence begun, to procure the materials of the cordage, needed for the Navy, will henceforth gradually naturalize themselves at home, and meet with a hearty welcome among our brother farmers. There is no doubt that the lands on Connecticut river are not the only fields which will be found congenial to the growth of that useful plant. Good land, wherever situated, on the hills and in the dales, is equally suitable; but it must be remembered that hemp is a great exhauster, and will not succeed, crop after crop, on the same spot, without the assistance of a sufficient dressing of manure.

The great national purpose of cordage, and of sail cloth, not only may be secured, but the manufacture of fine cloth, fit for shirting, might be encouraged, and open another vast field for a very profitable industry. There is none equal in excellence, and durability to HEMP SHIRTING. *A small field of hemp*, and *a well stocked garden,* are esteemed as two necessary appendages to almost every farm house in Switzerland; and the breaking and drawing of the hemp, as soon as it is ready for the purpose, becomes the general employ of the women, young and old, who are seldom seen walking abroad, or sitting at home, without a small bunch of hemp tied to their apron-string, to furnish them with the seasonable and favorite employ. It provides the families with sheeting, shirting, and table linen, of the most lasting and excellent quality. Some linen of a finer kind is manufactured for sale, and there are several towns in that country, known for the fabric of those finer sorts, particularly the small city of Arau, in the canton of Berne, and all the villages round Mount Voiron in the Alps, where the snowy winter months are universally employed in weaving among the families.

Cotton is not an article of our growth; we must fetch it from far distant parts, and *we must pay for it*. Hemp would furnish us with materials far preferable, and would grow readily to our hands, without any other cost, than pleasant family labor. Industry and economy seem therefore to hold forth powerful arguments in favor of that culture. Fine hemp cloth not only furnishes the best shirting, but is also remarkably appropriate for the purposes of printing, and vastly superior to cotton.

Printed cottons are of modern introduction. England, which, at the present time, deluges the world with this kind of goods, knew very little about printing, fifty years ago. Silks were then the general wear for the genteeler parts of the community, worsted stuffs for the lower classes, and a few printed linens, very beautiful and very durable, were imported from Switzerland. The Scotch began first to print cotton cloth, dark colored, with ordinary copper plates. A few years after, several attempts were made to raise printing houses in some of the villages round London. Swiss workmen were imported to begin that manufacture, and form native hands to the same. Manchester came on afterwards, and now exceeds them all. The climate of England not being propitious for the raising of hemp, nor of silk, their policy pointed out cotton, as the cheapest material they could pay for to foreigners, and they have made a free use of the discovery, as we all know, that in our days, there is not a shop, from the north pole to Cape Horn, but what is overflowing with British prints, of all natures and denominations. Their outfit is a small affair; the materials are light, and of small pretensions for value, and for durability. But this is the consumer's concern; that of the foreign manufacturer is to get paid as often as possible, for printing, and for colors. It would seem, therefore, that the true policy of New England, should be to take advantage of the privileges of her soil and climate, so congenial to the production of silk, and of hemp, to provide her manufactories with those valuable materials, which in the course of a few years, might be made to supply her own population, and a vast surplus for exportation.

Our ancient political and private economists, have told us, *that a penny saved is a penny got*, but when economy and industry are jointly concerned, as would be the case in this instance, the penny saved might eventually beget a great gain, because the habits and views consequent to the practice of a well directed industry, are far superior to the smaller results of economy isolated and alone.

I give myself the pleasure to accompany this communication with a sample of hemp linen of Swiss manufacture, the only one I have. It will show the article, which possibly may gratify the curiosity of some of your friends. Respectfully yours,

J. M. G.

Weston, March 9, 1830.

(From the Sullivan Mercury.)

AMERICAN HEMP.

Being desirous to lay before our agricultural readers all the information we could obtain relative to the growth and management of hemp in our country, which article, as we have previously stated, has attracted much attention of late, not more on account of its novelty in market, than for its superior quality, we addressed a letter to Mr. E. M. Bartlett, of Northampton, Mass. requesting him to furnish us with a description of the machine used in dressing hemp by the company at that place, together with the method pursued to prepare it for market. We have been politely favored with the following reply, which we have the pleasure of inserting in our columns for the benefit of all those who take an interest therein, presuming, however, that as we have no experience to put in competition with that of men who have devoted their lives to agricultural pursuits, we ought not to offer any advice on the subject.

We should suppose at the first glance of the subject, that a crop of hemp prepared for the market with the facility here described, would be more profitable to our farmers than any other crop they could raise; but at the same time, we know there is a vast difference between reading a system in print, and carrying on the operations it describes, in the field.

Messrs. Editors,—Yours of the 18th, directed to Col. E. M. Bartlett of this town, has been put into my hands, with a request that I would answer it.

Hines and Bain's Machine for dressing hemp and flax. (patented to Joseph Hines) consists of sixty pairs of fluted rollers or cylinders, placed horizontally on a form about four feet in length. The rollers are about four feet in length, and about six inches in diameter. These rollers, (excepting two pair near the head of the machine, which are cast iron,) are made of rock maple, and the flutings in the rollers are graduated for each pair from the head to the foot of the machine. Each roller has a level wheel on the end of it, which connects with a line-shaft, on which are also level wheels, interlocking with those on the rollers. At the head of the machine is an apron on which the hemp stem is laid, and passes into the rollers, similar to wool into a carding machine. So nice and exact is the graduation of the flutings in the rollers, that the hemp, in passing through the machine, always preserves the same relative position, until it passes upon another apron at the foot of the machine, where it is taken off by one of the workmen. In passing through the machine, every inch of stem receives about one hundred and sixty strokes of the roller, which divest it almost wholly of the woody matter or shives.

Our process of dressing hemp and flax is as follows:—

When the hemp is gathered from the field, it is placed under shelter from the storms, that the stem may be left clean, and of a bright golden color. Before it is put into the machine, we keep it a few days in a dry house, warmed by artificial heat, until the stem is sufficiently dry to be divested of the woody matter by the machine. After running the stem through the machine, the hemp is bound in bundles, and rotted in clean water until the gum or mucilage, which is contained in the fibre, is entirely disengaged, It is then taken from the water and dried, after which it is again passed through the machine to soften it—then upon the dressers to disengage the tow, when it is fit for market.

You may have seen some notices in the Boston newspapers, of some hemp forwarded to that city, from the machine in this place. It is now no longer a matter of experiment with us, and we think we have satisfactorily established these facts, in relation to the production of a new source of wealth in our country, beyond all controversy.

1st.—That hemp can be grown in this country of as good, if not better quality, and in greater quantities upon an acre, than in Russia.

2d.—That upon rich lands, such as will produce a good crop of corn or grass, it is much more profitable to the farmer than any other crop he can grow.

3d.—That it can be dressed by machinery with a rapidity almost surpassing credibility, (a ton per day) without any injury to the fibre, and with far less waste than if done by hand.

With these advantages, I look forward to the time, when all importations of hemp and hempen goods into this country shall cease, and when the exportation of this article to foreign markets, shall form one of the staples of our country. Yours, respectfully,

Samuel Wells, Jr.

Northampton, Mass. Jan. 27, 1830.

COBBETT'S CORN.

The following letter appears in the Farmer's Journal:

"TO THE EDITOR OF THE FARMER'S JOURNAL.

"*London, Oct.* 29.

"*Sir,*—A few days ago, I read in the *Times* newspaper an account of a visit to Barnes Elms (or, as Mr. Cobbett calls it, Barn Elms, though why, I know not, for it is in the village of Barnes,) which gave me no very exalted idea of the farm management pursued there. However, as it is always best to see and judge for one's-self in these matters, I resolved to take the advantage of the first fine day to ramble as far as this spot, celebrated as being the fountain-head of British Indian corn, the very source, as it were, of the stream in this country.

"Like the source of many other streams, it was somewhat difficult to find out, and, withal, rather choked with rubbish; for of all the miserable crops, miserably farmed, that ever I had the misfortune to come across, certainly this, of the great Apostle of Reform, was, by many degrees, the worst; and I could not help exclaiming to myself, as my eyes glanced along the rows of poor, puny, half-starved looking plants, 'and is this the crop about which so much has been said and written, and which is expected to obtain for its owner a niche in the Temple of Fame, side by side with a Coke, a Curwen, or a Sinclair?' Well is it for Cobbett that he can write a little better than he can farm. Well, too, is it for his credit as a farmer, that the many are content to look through his eyes rather than their own, at the system of cultivation pursued at Barn Elms. For my part, though I had expected to find things bad, I certainly did not expect to find them quite so bad as, on inspection, they proved to be. I did not see the crop of last year, which, it will be remembered, was grown on the same field. I wish I had, that I might have been enabled to form some idea of the difference between the produce of this year and the last; but if it was not twice as good as the crop I saw (taking into account the quality of the soil, which is good,) I can only say it was a disgrace to the grower. Be it remembered, too, that this corn was recommended by Mr. Cobbett as a preparation for wheat! If the second year's preparation for wheat turns out no better than I found it, what would have been the fate of the wheat itself after such preparation? As to the amount of the crop now on the ground, I really cannot estimate it low enough.* The rows are too wide apart, and two-thirds at least of the surface are thus literally wasted with rubbish and beggary. The intervals between the rows may have been both horse and hand-hoed; but I confess I could not discover the traces of any such operations, and I should be exceedingly sorry to swear to either one or the other.

"The crop, (for such, I suppose it must in courtesy be called) was in progress of removal into the barn. It was nearly ripe, though by no means in a state to put together in any large quantity; but, if tolerably dry, there is no great cause for apprehension on the score of fermentation—the whole produce would go into a very little compass. With no better specimen to exhibit, I wonder that Mr. Cobbett should permit strangers to come and see 'the nakedness of the land;' but, in justice to him, I must observe, that not only are they so permitted, but that every facility is afforded them, when there, to examine and judge for themselves.

"The correspondent of the *Times* was struck by the nakedness and discomfiture of the yards; and so, in truth, was I. Not a particle of straw, nor indeed of corn, with the exception of the Indian corn, could I discover on the premises; and I left the place fully persuaded that Shakspeare is not the only man who has written 'Much Ado about Nothing.'

"I am, Sir, your obedient servant, T.

"P. S. There is an assertion by a writer in the *Times* of last week, that Indian corn is unwholesome; nay, that it will drive man and beast stark mad. I should think the unhappy writer of the above sage article had partaken pretty freely of the noxious ingredient himself. Yet I do not so much wonder at the folly of the individual who broaches, and perhaps believes in, so absurd a doctrine, as the editorial stupidity which receives and promulgates it as orthodox. The truth is, that though, by itself, it will not do to make bread, yet, when mixed with a certain portion of wheat flour, it makes not only good bread, but wholesome bread; and as to its excellence as food for cattle, hogs, and horses, I can testify on a pretty large scale. It is ground for the two former, and crushed between rollers for the latter.

[The writer of this letter seems to have had in view the exposure of Mr Cobbett's imputed unskilfulness as a farmer, rather than the demonstration of the unfitness of our climate for the growth of Indian corn. Mr Cobbett, however, is little to blame for the failure of this year's crop. In almost every instance where the experiment was tried (except in gardens with a rich soil, and sheltered) the result seems to have proved that the climate of England is not fit for the growth of this corn In very favourable years, indeed, with a produce of 100 to 120 bushels per acre, it would be a profitable speculation; but the average annual produce of 10 years would not, probably, be 50 bushels. This year the average produce in some open fields near London has not been 20 bushels per acre, and in a few instances it has fallen short of 10 bushels. The grain was all in an unripe state, and required kiln-drying, by which its bulk would be much reduced. The silly stories about the unwholeness of Indian corn are not worth notice: the utmost that can be said against it is, that it does not possess the nutritive principle so abundantly as wheat. Experience, however, has shewn that it is excellent food for pigs and poultry, although it is, perhaps, 30 per cent. less nutritious for horses than oats or barley.]

[Form of an English Agricultural Report. It would not be easy in our country of so much greater extent and variety of productions, to make up such reports with accuracy—but it might be done for counties, or perhaps for a whole state.]

AGRICULTURAL REPORT FOR DECEMBER.

The December of 1829 has worn his own appropriate wintry garb. Even the former part of the month was gloomy and cold, but not severe; sometimes foggy, and occasionally frosty. But with Christmas have come cold, and snow, and frost, indeed. The earth, generally speaking, is not deeply covered; but since it first put on its snowy mantle about a week ago, it has continued to lie wrapped up in it without intermission, neither rain nor thaw occurring even partially to withdraw it. It remains undisturbed under a dry and severe frost, while occasional scuds of snow seem to threaten a still heavier fall previous to the return of milder weather. The labours of the plough are suspended, vegetation is arrested, herb and blade of corn or grass are hidden from the eye, the face of nature is an universal blank, and, as far as out-of-door observation is concerned, the agricultural reporter's "occupation's gone." In this season, when the field, which is the farmer's study, and the growing crops, which are his books, are closed and locked up from us, we must have recourse to the barn and the stack, the flail and the threshing machine, the market and the account-book, to furnish matter for a Report. And what information do we derive from these quarters? Our barns and our stacks exhibit hideous and premature chasms, that have been necessarily made in their stores to supply our current expenses; our flails and our threshing machines tell us, in language not to be mistaken, that our crops are far from productive, and that their quality is too frequently much deteriorated.. Of the markets, it will be our duty, at this season of the year, to speak somewhat in detail; and as to the ugly columns in our account-books, although we may have occasion cursorily to allude to their results, yet the less we say of them, and the sooner we shut them up, the sooner we shall get rid of a troublesome monitor.

The observations arising out of these several matters we shall arrange under distinct heads. 1st. The quantity and quality of our crops. 2dly. The state of the corn market, and of prices. 3dly. Our importation of foreign grain. 4thly. The supply and prices of cattle and meat. 5thly. The difficulties which oppress the agricultural interest.—First, the opinion which we originally hazarded, concerning the amount of the wheat crop, seems to become more prevalent in proportion as a larger part of it is subjected to the flail and the threshing-machine. Accounts from several counties, both in England and Scotland, from the north and from the south, from the east and from the west, represent it as below an average produce, though by no means so deficient as the crop of 1828. Barley, and oats, although considerably below an average, especially the first, yield better than was at first anticipated, or has been generally acknowledged, but their produce has been very partially and capriciously distributed among different growers. The quality of every species of grain, and especially of spring corn, is very various; as good fortune and good management prevailed, or otherwise; but very large portions of all sorts, particularly of the latter, are found to have received different degrees of injury, in some cases approaching nearly to perdition. The present frosty weather is working an amendment in damp and soft samples. It cannot, however, restore brightness or value to black barley or to blighted oats. Secondly, the state of the markets and the prices of grain exhibit a dulness not by any means unusual at this time of the year, and which the large quantities of inferior samples have materially contributed to aggravate. But, if we proceed to take a view of the average prices of the past year, and of its several quarters, we shall find, perhaps, that we have little reason to complain of them, in the abstract, unless taken in conjunction with deficiency of produce—an event arising out of the seasons, and inevitable, however calamitous. The price of wheat, on an average of the fifty-two weeks preceding the 18th of December, is 66s. 7d. a quarter—a price, in years of average production, confessedly adequate and remunerating. But the crop of 1828 was not less than one-third below an average produce; and that of 1829, although less deficient in quantity, was very expensively harvested, and was much injured by the weather. The markets present to our view a gradual declension in price, from the beginning to the end of the departed year. The annual averages of the principal sorts of grain, for the three last years, are as follows—viz.

	Wheat.	Barley.	Oats.
The average of 1827 per qr.	55s 0d	35s 0d	26s 0d
1828 " "	59s 6d	33s 0d	22s 6d
1829 " "	66s 7d	32s 0d	22s 10d

Dividing the year 1829 into four quarters, the average price of wheat, for the first is 72s. 5d.; for the cond, 70s.; for the third, 66s. 6d.; and for the last 57s. 6. Barley and oats have also gradually declined during the course of the year, but not so materially. There is nothing, however, in these prices, it must be acknowledged, whether taken simply by themselves, or in comparison with preceding years, which seems calculated to lead to ruinous consequences, or to be productive of our present embarrassments, unless they were connected with failing or deteriorated crops. We should, nevertheless, view any aggravation of the present depression with considerable apprehension. The decline of our markets seems attributable partly to the great proportion of inferior grain, of which their supply has, of late, mainly consisted; partly to the injudicious, or perhaps inevitable profusion with which this damp and cold grain has been forced into the market, before its proper season; and partly to the circumstances which we proposed to consider thirdly, the importation of foreign grain. It appears, that during the course of the year ending on Dec. 1, 1829, there were entered for home consumption, in the United Kingdom, about the following quantities, in round numbers, of the different sorts of grain, viz.—wheat about a million and a half of quarters; barley about 360,000 quarters; oats about 200,000 quarters; and there were remaining in the warehouse at the same period, wheat 203,749 quarters; barley 62,129 quarters; oats 445,922 quarters.—These importations, large as they are, have unquestionably had their share in reducing the prices of British grain; but then it must be remembered that they have evidently been needed: and more especially as they relate to wheat, without them we should have experienced absolute scarcity, and have been subjected to all the awful consequences resulting from that dire calamity. It is not easy to look forward to the future state of the markets; but it seems certain that our supplies from the Baltic must now for a time be suspended. It is to be hoped, as our native produce gets into a drier state, and more capable of being preserved uninjured in the sack or in the bin; it will not continue to be hurried to market in such ill-timed profusion; and that as the panic subsides, which has certainly aggravated our actual distress, some advance of prices may take place in the course of the ensuing spring. Fourthly, the supply of cattle and sheep to Smithfield market, and their prices for the last year and the two preceding ones, are as follow:—

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* "To account for this poverty, we shall, doubtless, have the old story of rooks, wireworms, the season, and other 'ills that corn is heir to;' but the plain story is, not a quarter enough seed was sown. There are enough *plants* in the rows, but there are not enough *rows* in the field. The intervals must be filled up with something, and Mr. Cobbett seems to think that weeds are better that nothing!"

	No. of		Average Prices per stone of 8lbs.	
	Beasts.	Sheep.	Beef.	Mutton.
1827	150,686	1,524,466	3s 5d to 5s 1d	3s 8d to 4s 9d
1828	158,969	1,372,720	3s 5d to 4s 5d	3s 9d to 4s 9d
1829	168,780	1,398,106	3s 2½d to 4s 2d	3s 4d to 4s 6d

Our supply (of the metropolis) here appears to be about an average one, but the prices have declined, not, however, in a degree beyond what might readily arise from the individual decrease of consumption among the distressed members of various classes of the community. Fifthly, the difficulties which oppress the agricultural interests constitute a subject too complicated to be discussed within the limits to which we are now confined; and we can add little to what we have suggested in former reports. We may, however, just observe that the review of prices given above tends to confirm the statements we have heretofore made, that the distresses so universally complained of among farmers arise in part from causes antecedent to the present year, and extraneous to the present systems of corn law and currency; and partly from the effects of two seasons deficient in produce and disastrous as to the weather. Our prices of grain, upon the whole, have not been below the average of preceding years, and our prices of meat not considerably so.

COTTON AND RICE EXPORTS.

The foreign exports from Savannah, from the 1st Oct. to 1st. inst. are 54,443 bales, being less 3,931 than last season. 7,751 less have gone to Liverpool and 7,000 more to Havre. The coastwise exports have increased 1,310 bales.

The foreign exports from Charleston same period are 70,111 bales, being a falling off of 8,368. 20,589 less have gone to Liverpool and 8,871 more to Havre. The coastwise exports fall short 952 bales.

The exports of Sea Islands to foreign ports [no account is kept of coastwise shipments] are.

	This season.	Last season.
From Savannah	1156	2170
From Charleston	2627	6160

Being nearly two-thirds less than last season.

The exports of rice same period are, from Savannah:

	This season.	Last season.
Foreign	5141	1292
Coastwise	1854	3202

Increase 2571 tierces.

Exports of rice from Charleston:

Foreign	32,009	29,963
Coastwise	12,297	8,573

Increase 5,770 tierces.

MORE FLORIDA SUGAR.

A lot of sugar has recently been brought to this market from Holmes Valley, in our immediate vicinity, which we feel assured would not suffer by a comparison with the first quality of New Orleans sugar. Considerable avidity was shewn to obtain this article, and it was readily disposed of at 8 cents, which is an advance on the New Orleans prices. A considerable portion of this year's crop of sugar, as we are informed, still remains to be brought to market from Holmes' Valley and other sections of this country convenient to this place. And an opportunity is hereby offered of opening an intercourse which will be mutually advantageous. Since the Pensacola merchant might afford to pay more than the market price at New Orleans, and yet get the article cheaper than he now does, as one heavy freight and all the attendant charges would thereby be saved. [*Tallahasse pa.*

(From the New England Farmer.)

FACTS WORTH REMEMBERING.

Too rapid growth and premature decay seem invariably connected in organized structures; [that is, in animals and vegetables.]—*Davy.*

One cause of the unproductiveness of cold, clayey, adhesive soils, is, that the seed is coated with matter impermeable to air. Seeds should be sown so as to be fully exposed to the influence of the air.—*Ib.*

To cure hoven in cattle.—Apply a dose of train oil, proportioned to the age and size of the animal. Give to an ox or cow a pint, from a bottle, and rub the stomach well, in order to make it go down, and give the animal exercise.—*Farmer's Mag.*

Crush the corn given to fowls in winter, and soak it in water. This helps digestion; and fowls will lay in winter when so fed that would not otherwise.—*Monthly Mag.*

To cure measles in swine.—Put into the food of each hog, once or twice a week, as much of crude pounded antimony as will lie on a shilling.—*Mackenzie.*

Effects of temperance.—The Friends or Quakers, wholly abstain from the use of spirituous liquors. It appears from their registers that one half of those that are born live to the age of 47 years. According to Dr. Price, of the other population, half that are born live only two years and three quarters. Among the Quakers one in ten live to 80 years of age; of the general population of London, only one in forty.

To protect persons from the pernicious effects of Charcoal.—Place a flat vessel, filled with lime-water near the stove or vessel in which the charcoal is burning, and change it as often as it becomes covered with a film or pellicle. The lime strongly attracts the mephitic gas evolved by the burning charcoal, and preserves the purity of the air.

Dung.—As soon as dung begins to decompose [ferment or rot] it throws off its volatile parts, which are the most valuable and most efficient. Dung which has fermented, so as to become a mere soft adhesive mass, has generally lost from one half to one third of its most useful constituent elements. It evidently should be applied as soon as fermentation begins, that it may exert its free action upon the plant, and lose none of its nutritive powers.—*Davy.*

Ripening fruit.—The instances are numerous, of fruit keeping better, when gathered early, or before it was considered ripe, than when suffered to hang late. And it is believed that winter apples and pears should always be gathered in September. In the transactions of the Caledonian Horticultural Society, James Howison, Esq. states, that he gathered pears some weeks before they were ripe, and placed them in drawers in a room where fire was constantly kept, temperature 58° to 60°. After ten days the jargonelle, and after a month the moorfowl egg, were found ripe, and better flavored, than if ripened in the open air. Unripe melons gathered in October, treated in the same way, ripened and acquired a good flavor. The inference he draws, and which undoubtedly is correct, is, that the organic elaborations of the constituent parts of fruit are all finished in the early stage of their growth, *or when arrived at their full size,* and that their ripening is a process of chemical changes, similar to fermentation, which with a sufficient and regular application of heat goes on, in some degree, independent of the living principle. My opinion is, that winter fruit is prejudiced by being left on the trees, after they have attained their full size, as after that time, the natural temperature is generally too low for chemical changes which give perfection to flavor.

The Cockchaffer.—M. Colvert has suffered extensively from the ravages of this insect, and therefore no longer stirs the soil in the months of May, June and July, among his roses, but pulls out the weeds by hand, leaving the surface as hard as a gravel walk, In order to prevent the insect depositing its eggs there. This mode is found *successful,* as is that of covering the ground with wheat straw, at Vibut's rose garden at St. Dennis, and other places where the soil is too loose to become hard.—*Loudon.*

M. Colvert shortens the shoots of the young rose acacia in July, by which means they make new shoot in August, and are kept flowering all the fall till stopped by the frost.—*Ib.*

The cultivation of fruit trees is a branch of education in Mecklenburg, Sweden. No school master is permitted to exercise that function without a certificate of his capacity to teach the management of fruit trees. The same masters are obliged to take care of fruit gardens.—*Ib.* Nothing constitutes so many healthy and economical dishes, as *good* fruit, if raised by the consumer.

To destroy animal and vegetable enemies of fruit trees.—Wash with a *strong* ley in April. To destroy the bark louse on the apple—wash with a strong ley the last of May or first of June. No one who tries this remedy once will relinquish it unless he is indolent or very indigent. Most of our insect enemies are repelled by vegetable odors. Hence the elder, sassafras, mint, &c. generally escape their depredations. Tar, mixed with lime ashes, or earth, at the base of the peach, is said to repel the worm. And I lately saw hundreds of clam shells tied to cherry trees, on which tar had been daubed in summer, to keep off the aphis and other insects. It produced the desired effect.

Respectfully, J. Buel.

Brighton Market—*Monday, March* 15.

(Reported for the Boston Chronicle and Patriot.)

At market this day 373 beef cattle—87 stores. 570 sheep and 384 swine—divided as follows: *Old Market,* 144 beef cattle (including 61 unsold last week) 47 stores, 200 sheep and 384 swine. *New Market,* 229 beef cattle (including 31 unsold last week) 40 stores and 370 sheep, (including 260 unsold last week.)

Beef Cattle.—The market to-day was more brisk and active than we noticed the previous week, and sales went off more readily. We quote a few sales of extra quality at 5¼ a 5½—*Best* $5 and other qualities from $4 a 4¾ per cwt.—about 30 remained unsold at the close of the market.

Milch Cows.—Such as come to market, plenty and dull. We give the sales of two this day to shew the difference ordinary purchasers make betwixt a good cow and those that are usually offered for sale, viz:—1 cow without a calf $72 50—1 do. with a calf $11 25.

Sheep.—The only transactions we noticed to day was the sale of a lot unsold last week and a lot of 110 at the *New Market,* prices not known.

Swine.—Business in the swine trade to-day was quite brisk—upwards of 200 were taken in small lots at 4 a 4¼ cts. per lb. and a few by retail at 4½ a 5.

HORTICULTURE.

The Vine in the Valley of the ohio.

Belvidere, near Steubenville, Ohio,
March 12th, 1830.

J. S. Skinner, Esq.

Dear Sir,—I have observed that Mr. Herbemont, and other gentlemen to the south, in speaking of the culture of the grape vine, remark on the uncertainty of the crop from blight, frost, &c. and that you could not expect a full crop oftener than once in three years. Now in this part of the valley of the Ohio, say from Pittsburgh to Marrietta, I think there would be no more certain crop, much more so than apples, peaches, or any of the common fruits. I know two vines of the Schuylkill grape, that have been bearing for sixteen or seventeen years, that have not missed one season in that time, and for several years past have had from fifty to sixty bushels of grapes, I have a vine of the same kind, the cutting of which was put in the ground eight years ago; it bore the second year and every year since, has had a good crop; last year say ten bushels. I have also the Catawba, Isabella, Bland, Madeira, Burgundy, all which bore fruit the second year from the cuttings; the Catawba and Isabella, as many as twenty bunches to the vine. I have also the Chasselas Blanc, which is not so certain a bearer, as the fruit is apt to blight, unless the vine is trained ten or twelve feet high, and on an open trellis; it wont do well against a wall. I covered mine for several years with earth, in the fall, according to the common directions; but as it was troublesome, I thought I would risk them without the two last winters, which you know were severe, and have found them to do just as well as other grape vines. Mr. B. Wells, of this place, inserted a graft of the Schuylkill grape, last April, into a common wild vine; the principal branch grew in length ten feet, and, adding all the branches, the growth amounted to above thirty feet in one season; and, to crown all, it produced two bunches of grapes.

PHILADELPHIA SILK.

An extract of a letter from a gentleman of Lyons, in France, contains the proceedings of the Chamber of Commerce in relation to American silk, &c.

The proceedings were originally published in the *Precursor*, a paper published at Lyons, Jan. 3, 1830.

Chamber of Commerce.—The chamber had requested one of its members to cause to be assayed at Lyons, the silk that has lately been prepared at Philadelphia.

The assay took place recently upon a sample prepared by Mr. d'Homergue, of Nismes, son of Louis d'Homergue, late proprietor of a splendid filature of silk, in the said town.

It results from that assay, publicly executed at Lyons, by Pierre Mazel, licensed assayer of silks, that the raw silk obtained in Philadelphia is of an extraordinary quality, and is admirably adapted to all the uses of fabrication. Its degree of fineness is 16 dwts. so that it would produce singles of 50 dwts; or organzine of 32, and tram or woof silk of 30, a quality of silk extremely rare in our country. American silk is fine, nervous, good, regular, clean, of a fine colour; in a word, it unites all the qualities that can be wished for. Its market price in the state of raw silk, well reeled, according to its different qualities, well prepared, would be 26 francs a pound, and the sale of it at Lyons, would be very easy, particularly if there was a constant supply of bales weighing from 100 to 150 pounds.

The Chamber of Commerce loses no time in publishing information so satisfactory. They ought, more than ever, to excite the Americans to plant mulberry trees and raise silk, a kind of industry that will afford great advantage to both countries, and may in future give birth to establishments of various kinds, and be a new source of wealth to the United States.

(From the New England Farmer.)

An account of the Proceedings of the Council of the Massachusetts Horticultural Society at the Quarterly Meeting, held at the Hall of the Institution on the 6th December, 1830.—Report made by H. A. S. Dearborn, *President of the Society.*

Since the last meeting the following letters have been received:

1. A letter from Vicomte *Hericart De Thury*, President of the Horticultural Society of Paris, expressing his thanks for the honor which this Society had done him, in electing him an honorary member.

2. A letter from Comte de *Lasteyrie*, Vice President of the Horticultural Society of Paris, tendering his grateful acknowledgments for the like attention shown him, and announcing that the Society of which he is an officer is desirous of entertaining a correspondence with that of Massachusetts; and that anxious to evince the interest and respect which it entertains for our labors, he announces that the President, Vice Presidents and Corresponding Secretary had been named honorary members of that Society; and he has sent a package of seeds of a plant recently introduced as a sallad, called *Semkiera pimentifolia*. The letter was published by the order of the Executive Committee.

3. A letter from *J. C. Barnet*, Esq. Consul of the United States in Parts, with a case containing the following books for our library, which had been ordered to be purchased.

Thouin, Plans des Jardins, tables et plans colores, 1 vol.
Nouveau Cours d'Agriculture, 16 vol. 8vo.
Duhamel, La Physique des Arbres, 3 v. 4to.
Ventenot, Description des Plantes, 1 v. 4to.
Thouin, Cours de Culture, 3 v. 8vo.
Hotton, Manuel de l'Elagueur, 1 vol.
Art du Jardinier, 1 vol. 12mo.
Culture Rurale, 2 v. 12mo.
Traité des Bois, 1 v.
Lecons sur la taille des Arbres.
Catalogue de Van Mons.
Manuel Complet du Jardinier, 4 v. 8vo.
Annales de la Societe d'Horticulture, 4 v. 8vo.
Chaptal's Chimie, appliquée a l'Agriculture, 2 v. 8vo.

4. Letters have been received from Col. *Aspinwall*, Consul of the United States in London, announcing that he would cheerfully procure the books which have been ordered for the Library; they are daily expected.

5. A letter from Doct. *James Thatcher*, of Plymouth, with a model of an Apiary and Bee Hive, which have been deposited in the hall of the Society, and noticed in the N. E. Farmer. Doct. Thatcher merits especial commendation for the services he has rendered to the arts of Rural Economy, by his works on fruit trees and the cultivation of bees. His recent improved hives and Apiary appear to combine whatever is desirable for the comfort, protection, and good management of those valuable insects.

What a cheering spectacle does this venerable patriot present; how worthy of example are his acts of beneficence. After a long life devoted to the best interest of his country, the horizon of its decadence is gilded by the rays of intelligence, instruction for the generations, which are ascending toward the meridian of their usefulness. The cultivators of the soil acknowledge, with gratitude, their obligations, and his name will be ever cherished by the descendants of the Pilgrims.

Proceedings of the officers of the Society and of the Executive Committee of the Council.

Communications have been sent by the President to the President and Vice President of the Horticultural Society of Paris, and to Professor Poiteau and M. Du Petit Thours, on various subjects, and requesting an interchange of intelligence on the interesting objects for which our institutions were established, and of the seeds and plants of France and of this country.

To reciprocate the favors received, and to evince our solicitude for an amicable intercourse, cuttings have been sent of the following native fruits, which were collected and carefully packed up by Samuel Downer, Esq. chairman of the Executive Committee, who also furnished descriptions of the varieties: and Z. Cook, Jr. Esq. having added vines of the Isabella, accompanied them with a very full and particular account of his manner of cultivating that grape, as well as of all other kinds.

List of scions and plants collected by S. Downer, transmitted to France by the President.

PEARS.

No. 1 Scions of Dix.
2 " Lewis.
3 " Harvard, heretofore known as the Epergne.
4 " Gore's Heathcote.
5 " Clapp.
6 " Seckle.
7 " Bartlett.
No. 8 Scions of Andrews.
9 " Cushing
10 " Wilkinson.

APPLES.

No. 11 " Baldwin.
12 " No name.
13 " Porter.
14 " A Red.
15 " Double and treble.
16 " Roxbury Russetings.

—

17 " Downer's native mazzard Cherry.
18 One Isabella Grape Vine.
19 " Bland's pale red "
20 " Catawba " "

At the same time the two last volumes of the New England Farmer was transmitted, to illustrate the accounts given of the fruits, and for the information they contain on the Horticulture of this country.

(From the National Gazette.)

To the Friends of Horticulture in the United States.

A patriotic lady in New Jersey, to whom Horticulture is under great obligations, has addressed the following letter to a member of the Horticultural Society of Pennsylvania, for the purpose of being laid before it, on the insects which destroy the produce of some of our fruit trees, and proposes a large premium for the discovery of a remedy for this great and increasing evil. The society, fully sensible of the important nature of the letter, appointed a committee to report thereon; to correspond with other Horticultural societies on the subject; and to endeavour to procure all the information in their power in relation to the means of preserving fruits from the destroying enemy. With the last view, the committee have thought proper to publish the letter, and will be pleased to receive communications on its contents from those who have it in their power to give useful information, or to contribute to the fund proposed to be raised as a reward to the person who may be so fortunate as to discover the wished-for means of saving to the country the immense quantity of fine fruit, that is annually lost, by the depredations of insects.

As the writer of the letter wishes her name to be concealed, it is withheld; but it shall be communicated to those who wish to undertake the proposed task, and to avail themselves of the information respecting the nature and habits of the insects, which the writer, by close attention and long experience, possesses.

Communications may be addressed to *David Landreth*, Jun. Chestnut street, Corresponding Secretary of the Pennsylvania Horticultural Society.

By order of the Committee,

James Mease.

Philadelphia, March 17, 1830.

☞ Publishers of newspapers throughout the United States, are requested to insert the above, and the following letter:

January 19, 1830.

Dear Sir,—It is about thirty years since I first became aware of the fact, that certain kinds of fruit fell from the tree before they were ripe. Since that period, I have extended my observations, and I am quite convinced, that although the severity of the winter may and does sometimes injure the fruits, yet the chief cause of their frequent failures is the injury done to them by insects. I do not now allude to those which puncture the bark, either on the limbs or near the roots, nor to those which eat the leaves. They are of very little importance, mischievous as they are. It is of those which attack the fruit itself, that I now speak, and to which I wish to draw your attention. There is scarcely a member of your society that can imagine the extent of the evil which these insects produce; for the markets are no criterion from which one might draw a proper conclusion. If these insects could be destroyed, there is every probability that unripe fruit, and such as is of an inferior quality, would be entirely banished from our cities, thereby greatly lessening the bills of mortality. But for these insects, cherries, nectarines, plums and apricots could be sent to market for half a dollar a bushel, and of these, none but the finest kinds would be cultivated. As it is, these fruits are scarce and of high price, and as the insects generally choose the finest kinds for themselves, the markets are crowded with that which is poor and unripe. When we consider that fruit is no longer a luxury, but a necessary article of life, and that the heat of our summers renders it particularly grateful to all descriptions of persons, from infancy to old age—we ought to encourage every plan which has the cultivation of good fruit for its object. We must not judge that the evil of which I complain is of a local nature, because some few cultivators who live within the limits of a city, have been partially exempt from it. It is not from such small enclosures that a city is to be supplied with fruit; nor is it to those who have but few trees under their care that we must look for sympathy or hope for information. We must inquire of those who have planted large orchards, and who have, year after year, been careful to note the various accidents, diseases, and depradations which injure trees and cause their fruit to perish. For myself, independently of several large orchards of apple, pear and peach trees, I have upwards of twelve hundred full bearing plum, nectarine and apricot trees, all of the rarest and most delicious kinds. The climate is favourable to their growth and fruitfulness, and my abilities and inclinations are adequate to their care, and to effect the object I had in view when I planted them;—this object was profit. Year after year, as these fine healthy trees began to shew fruit, did I anticipate the reward of my labours, hoping that when in full bearing the quantity of fruit would be so great as to ensure me at least a certain portion of it.

This last summer—in June—(although the frost had entirely cut off my peaches)—there was every prospect of *each* plum, nectarine and apricot tree bearing at least *one* bushel of fruit. You will judge of my disappointment, when I tell you, that from these twelve hundred trees I did not gather so much as a single plum!—*the insects destroyed them all.* Besides this loss, the apples, quinces, cherries, and pears, were so knotty from the punctures of the same insects, that they were unfit to eat. When we think of the loss to a city of twelve hundred bushels of such fine fruit—and from one farm only—we may imagine what it must lose, when, but for these insects, twelve thousand bushels might be taken to market.

As it is, very few persons cultivate any other fruits than apples and peaches; and these often suffer very materially, in certain seasons, from this very cause. In fact—so numerous have insects become,—that two thirds of the apples have been injured by them during the last summer, and many hundred bushels of peaches have been rendered unsaleable, in consequence of the gummy exudations which disfigured them.

I have been for years employed, expensively, in attempts to destroy these insects, but have not yet been able to lessen their numbers. I have tried all manner of washes and fumigations, and have covered the orchards with as much of lime and ashes as the roots of the trees would bear; and what seemed to promise most success, I have caused every particle of fruit to be picked up as soon as it fell.

Thus disappointed,—and believing that a remedy must exist somewhere,—for these insects are neither poisonous nor invisible, I have thought it best to apply to the different Horticultural Societies for aid—and as you was kind enough to interest yourself in my representations, and promised to bring the subject before the Horticultural Society of Pennsylvania, I have made the first *direct* application to you, trusting that you will not only bring the matter, properly, before your own society, but that you will suggest the propriety of issuing circulars to all the Horticultural Societies in the United States.

The plan which I would propose, is to offer a *premium* for the destruction of these insects, and of such magnitude as to draw the attention of men of science to the trial. I think that a sum of two thousand dollars would not be too great, when we consider that two years of experienced labour must be devoted to the investigation.

As to the mode of raising this sum, if nothing better is suggested to you, I would propose that it should be done by subscription. I would engage to obtain three hundred dollars myself—asking no more than one dollar from each subscriber.

As two years would elapse before the experiment could be considered as fully tested, there can be no doubt, but that double the amount of the sum I propose, could be obtained. The surplus of which, after the premium has been paid, might be held by your society, as premiums for the destruction of those other insects and vermin which destroy our grains and injure our vegetables.

To assist any one who is willing to make the trial, I am willing to give all the information I possess. And as, by a laborious and long continued investigation, I have completely identified these insects, and know their habits, I can much facilitate the experiments of those who strive for the premium.

(From the New England Farmer.)

NATIVE APPLES.

Description of two kinds of native apples recently introduced into the collection of Mr. Prince, of the Lin. Bot. Garden, and which were received from Rhode Island.

Pian sweeting, a yellow apple with red spots, like the Talman sweeting, but is more juicy than that variety, it is one of the very best sweet apples, and ripens in September.

Wood's favorite, an early apple of a yellow color with red stripes, it is crisp, high flavored, and spicy with a pleasant acidity, and ripens in August.

LADIES' DEPARTMENT.

PROFITABLE DAIRIES.

Messrs. Goodwins,—Having seen in some of the newspapers an account of the avails of cows, kept by a gentleman in Massachusetts, to be 25 dollars a year each, the Widow *Draper*, of Wethersfield, Connecticut, determined to keep an account of the avails of her three cows for one year, ending March 15, 1830. The following is the result:

Four calves sold, 1 for	$5 00	
1 "	4 00	
1 "	2 50	
1 "	6 00	
		17 50
Milk sold, 300 quarts, at 4 cents is		12 00
Butter made, 502 lbs. at 1s. per lb.		83 67
Milk and cream used in the family, (a boarding house) estimated at five quarts, or twenty cents a day,		73 00
		186 37
This, besides the skimmed and buttermilk, for the growth of pigs, worth at least		3 63
		$190 00

The expense of keeping the cows is about 30 dolls. a year each, certainly not exceeding that sum, making a profit of $100 for one year.

The cows cost the following prices:—one $20; one $25; one $25. Total $70.

The above facts are well authenticated.

[*Conn. Cour.*

Men apt to promise, are apt to forget.
No grief is so acute but time ameliorates it.
Pardon others often; thyself, never.

(From the Literary Souvenir.)

THE NEGLECTED CHILD.

I never was a favorite;—
My mother never smiled
On me, with half the tenderness
That blessed her fairer child:
I've seen her kiss my sister's cheek
While fondled on her knee!
I've turned away to hide my tears,—
There was no kiss for me!

And yet I strove to please, with all
My little store of sense;
I *strove* to please, and infancy
Can rarely give offence:
But when my artless efforts met
A cold, ungentle check,
I did not dare to throw myself
In tears upon her neck.

How blessed are the beautiful!
Love watches o'er their birth;
Oh beauty! in my nursery
I learned to know thy worth;—
For even *there*, I often felt
Forsaken and forlorn;
And wished—for others wished it too—
I never had been born!

I am sure I was affectionate,—
But in my sister's face,
There was a look of love that claimed
A smile or an embrace,
But when I raised my lip, to meet
The pressure children prize,
None knew the feelings of my heart,
They spake not in my eyes.

But oh! that heart too keenly felt
The anguish of neglect:
I saw my sister's lovely form
With gems and roses decked:
I did not covet *them;* but oft,
When wantonly reproved,
I envied her the privilege
Of being so beloved.

But soon a time of triumph came,
A time of sorrow too,—
For sickness o'er my sister's form
Her venom'd mantle threw:—
The features once so beautiful
Now wore the hue of death;
And former friends shrank fearfully
From her infectious breath.

'Twas then, unwearied, day and night
I watched beside her bed,
And fearlessly upon my breast
I pillowed her poor head.
She lived!—she loved me for my care!
My grief was at an end;
I was a lonely being once,
But now I *have* a friend!

MISCELLANEOUS.

Mr. Editor:

The following is worthy of general notice, and I beg you will allow your paper to be instrumental in distributing and preserving it.

To the Honorable the Senate and House of Representatives of the State of Pennsylvania.

The Memorial of the Subscribers, citizens of the City and County of Philadelphia, respectfully sheweth:—

That imprisonment for debt is a discreditable remnant of a barbarous system of ancient times, whereby insolvent debtors became the slaves of their creditors, and were subject to all the pains and penalties of slavery.

"By the laws of the Twelve Tables, it was ordained that *insolvent debtors should be given up to their creditors, to be bound in fetters and cords,"* * * * * * "*They were in actual slavery, and often treated more harshly than slaves themselves.*"—*Adams's Roman Antiquities*, page 45.

"That imprisonment is punishment, and as such is inflicted on criminals;—that to imprison an honest, unfortunate insolvent debtor, is to punish him without trial or conviction, not for crime; but misfortune—and is unjust and oppressive; and any statute authorizing such cruelty and injustice, is an unconstitutional exercise of legislative power.

"That to contract debt with fraudulent intent, and to evade by fraudulent means the payment of a just debt, are criminal offences; and perpetrators thereof ought to be punished 'according to the law of the land,' and 'due cess of law.' "

That the ostensible object of imprisonment for debt, to force debtors to pay their creditors, fails in nine cases out of ten—as the records of prisons for debtors abundantly prove. It appears that in the city of New York, in the year 1829, there were 1085 persons imprisoned for debts to the amount of $25,409, of which there was paid in jail only $295—being less than one eightieth part of the debts.

That costs by this system are accumulated to an enormous amount; those attending the suits, for the above debts, having been no less than $362,076, or fourteen times the amount of the debts—and above one thousand times the amount of the sums recovered.

That imprisonment for small debts reduces numbers of families in all our cities to a state of pauperism and wretchedness—as the men on whom those families depend, are unable, while incarcerated, to contribute towards their support—and hence they are reduced to a dependence on the guardians of the poor; thus greatly increasing the burdens of the pauper system—burdens, at all times and under all circumstances so oppressive to our citizens, as not to require any unnecessary additions.

That in about eight months, from June 6, 1829, till Feb. 24th, 1830, there were confined in the debtors' prison in this city no less than 817 persons, of whom. 577 were for debts under twenty dollars; 437 for debts under ten; 263 for debts under five; and 30 for debts under one dollar each.

That of sixty-four of them, the debts were only 58 dollars, and the costs 120 dollars.

That the collecting together, without any classification, of the numbers of persons confined for debt, some of them profligate and worthless, has obviously a demoralizing and degrading tendency.

Your memorialists, therefore, hope, that at no distant day, the cruelty and inefficiency of the system of imprisonment for debt will cause it to be entirely expunged from our code—but for the present, at this late period of the session, they merely pray for the passage of a short act, similar to one in force in Massachusetts, whereby imprisonment for debts under five dollars, shall be immediately abolished; a point on the advantages of which, they fondly hope, there can be no difference of sentiment among enlightened and benevolent men.

Philadelphia, March 12, 1830.

ON OLEAGINOUS PLANTS.

Among the articles of vegetable food, the oils which are extracted from plants afford one of the most valuable; nor are they of less importance in affording us light by their combustion. They are employed also in a number of manufactures, such as soap, woollens, varnishes, and perfumery. There are two kinds of vegetable oil, distinguished by the name of fixed and volatile. The latter may be extracted from almost every plant; but it is used only as a perfume or to flavour liquours, such as the oil called attar of roses. These sweet-scented oils constitute the luxury of the sense of smelling, but are frequently prejudicial, from their effect on the nerves; and some few of them are employed medicinally. But the essential or volatile oils are not those most deserving our attention; the fixed oils are of much higher importance, and are extracted from a class of plants, hence called oleaginous. The oil is expressed from the seed of all these plants excepting the olive, in which it is obtained from the pericarp. The greater part of the seeds of oleaginous plants contain albumen, and it is from this that the oil is obtained; but when the seed has no albumen, as is the case with the poppy, it is the embryo which furnishes the oil. In the family of the *Euphorbiaceæ*, all of which have oleaginous seeds, the embryo is of a venomous nature, and oil extracted from it would be poisonous; while that expressed from the albumen of the same plant, situated contiguous to the embryo, is perfectly innocent. Such is the Bancul-nut (*Aleurites Moluccanum*,) which is remarkably mild, and is eaten by the inhabitants of the Molucca isles as we eat hedge-nuts in Europe, while oil obtained from the embryo is an acrid poison. The fixed oils obtained by cultivation may be ranged under three heads: 1st, Olive-oil, the produce of warm climates; 2d, Nut-oil, that of temperate climates; and, 3d, oils obtained from the seeds of oleaginous herbs. The olive-tree originally came from Syria. That plant as well as the vine, was brought to Marseilles by the Phocians; and at the present day, it is cultivated in all the shores of the Mediterranean. It is a tree of very slow growth, but of long duration; it can support a temperature as low as eight or ten degrees of Fahrenheit, provided the air be dry; but, if accompanied with humidity, one or two degrees below the freezing point proves fatal. The cultivation of oleaginous herbs enters into the course of cropping; they exhaust the soil almost as much as grain, on account of the number of seeds to be ripened; they require, therefore, a considerable quantity of manure. These herbs are generally of the cruciform family, containing azote, an element of the animal kingdom, which forms excellent manure; so that, after the oil is expressed, the cake which remains serves to restore the exhausted soil. Rape is a species of cabbage with thin roots, whose seeds yield excellent oil. The poppy is an oleaginous plant, with white, scarlet, and violet flowers, while the seeds are white or black. They yield oil, perfectly innoxious and wholesome, though drawn from the same plant which supplies us with opium. Flax also is an oleaginous herb. It is, however, chiefly cultivated for its stalks, from which linen thread is fabricated; but its seed also yields the oil we call linseed-oil. It is much used in the art of painting. Hemp is of the same description. There are some few oleaginous herbs of the leguminous family, such as the subterranean arachis (*Arachis hypogæa*,) a plant we derive from America, which has the singular property of ripening its seeds under ground. This plant requires a loose sandy soil, in order that the lower branches may be enabled to bury themselves in the ground. In a state of cultivation the earth should be heaped over them, as is done with potatoes. The upper branches, which blossom in the air, ripen no seed; while the lower lateral branches, which burrow in the earth, develope no regular blossom; that is to say, have no petals; but the stamens and pistils bring the seeds to perfection.—*Conversations on Vegetable Physiology.*

(Items from late English papers.)

Consumption of Food in a German City.—The city of Bremen, which contains about 44,000 inhabitants, consumed in 1827, 2,295 oxen, 767 cows, 12,301 calves 8,405 sheep, 6,075 hogs, 90,608 pounds of smoked and salted meat, 63,328 fowls, ducks, and pigeons, 16,434 hares, turkeys, and geese, 194,050 oysters, 1,133,943 pounds of butter, 56,640 pounds of cheese, 991 lasts of rye, 116,400 pounds of rye-flour, 597,850 pounds of wheat-flour, and 192,275 pounds of oatmeal. The manufacture of beer has consumed 42,999 bushels of malt, and 977 lasts of rye. There have been drunk 2,314 exhofts of wine, and 323 of brandy, rum, and arrack.—*Ephemar. Geogr. de Weimar.*

New Year's Day in France.—New year's day is a terrible day in France for those who have many acquaintances. It is a day both of expense and fatigue; for it is kept up with all the good old ceremonies of new-year's gifts and *bonbons*, which even the mania of the revolution was not able to do away. For many days before, all the confectioners in France are engaged in fabricating sugar plums of every kind and description; nor let it be supposed that this is a mere manual operation; it is one of the most trying exercises of the invention. A French confectioner's reputation, his honour, is at stake; and I should never be surprised to hear that some sugar artist, of nice feeling, had drowned himself in syrup, like a fly, if he were to fail in producing something for *le premier de l'an* such as had never been heard of before. It cannot be long, however, before their imagination must come to a stand still, for they have literally exhausted worlds and then imagined new; and during the week which precedes the end of the year, their shop-windows are filled with imitations, in sugar, of every thing the mind of man can conceive. The most disgusting and the most tempting, filth and sentiment, refinement and indelicacy, are all jumbled together, a true picture of the nation.

Currié's patent Method of preserving Vegetable and Animal Substances.—The object of the patentee is to prevent the decomposition of vegetable and animal substances by removing the oxygen of the atmosphere from them, and substituting in its place an atmosphere of carbonic acid gas. The substances to be preserved, whether vegetable or animal, are to be placed in close receptacles, such as tanks. The atmospheric air is then to be extracted, and carbonic acid gas introduced, which, being heavy, will fill every part of the vessel and rest upon the top of the goods placed in it, and by that means prevent the re-entry of atmospheric air, containing oxygen, in the absence of which the decomposition of those substances could not take place. The carbonic acid gas may be obtained by any of the known modes, such as the burning of charcoal, or the fermentation of liquors; and when the articles, such as fruit, are preserved in glass bottles, the corks will likewise be prevented from decaying by the gas within.

Printing in Russia.—The first printing-office in Russia, was established at Moscow as early as 1553; but it was not able to put forth the first edition of the Book of the Apostles, now of extreme rarity, till 1564. A press, and type in the Sclavonian character, were forwarded to St. Petersburg from Amsterdam, in 1708; but the package was captured by Charles XII., then at war with Peter, and the materials were made use of in the printing of pamphlets against the Czar, which the King of Sweden, by means of his spies, distributed on the Russian frontiers. The ukases of Peter I. were printed at St. Petersburgh, at an office erected for that purpose, in 1713. The first private printing establishment in Russia, was formed in 1769, by Hartung.—*Foreign Literary Gazette.*

An iron chain suspension bridge has lately been constructed at Avignon, which is considered a master piece of art, and has attracted great attention from the beauty of its proportions. The total length from one buttress to the other is 500 feet; there are two stretches of 240 feet each, capable of supporting a weight of 500,000 kilogrammes. The breadth, which is the same the whole distance, is thirty feet, divided into three ways or roads; the centre one for carriages, and the two others for foot passengers. The height above low-water mark is thirty feet. A triumphal arch surmounts the centre pillar, as well as the two at the butments of the bridge, resting on the angles. It is supported by six iron cables, by means of vertical cords, the cables being fastened to the pillars after having passed over the triumphal arch —*Literary Gaz.*

RECIPES.

CEMENT FROM IRON FILINGS.

Having reflected, about a year since, (says M. Maillre,) upon the action of vinegar in the preparation of the cement known as *mastic de limaille*, which is prepared in this way—iron filings, garlic, and vinegar, of each a sufficient quantity to form a mass of moderate consistency; I proposed to substitute sulphuric acid diluted with water, for the vinegar, in the proportion of one ounce of acid to a litre (a little above two pints) of water, and to reject the garlic as useless. This alteration was soon adopted by all those to whom I communicated it; for vinegar generally costs in Paris eight or ten sous the litre, while the price of the acidulated water does not amount to as many centimes. Thus an architect to whom I had made it known assures me that this change, which at first appeared to merit no attention, will occasion a saving in Paris alone of more than 10,000 francs annually, and therefore deserves to be more extensively known. This cement is generally employed to close the joints of the stones with which most terraces are covered, &c. What takes place in this operation, it is easy to see—the iron filings with which the joints are filled up, occupying a larger space in proportion as they become oxydized, the oxydation being facilitated by the action of the acid with which they are impregnated, the joints become exactly closed.—*Journal de Pharmacie, Aout.*

REMEDY FOR BURNS AND SCALDS.

From the number of accidents which have lately taken place, and by which several persons have been so dreadfully burned as to cause death, we recommend the following simple remedy, by which the pain from either a burn or scald is instantly relieved:—Let clarified honey be applied on a linen rag, and in one moment the pain will cease. This remedy has been tried several times, and it always relieved the pain the instant the honey was applied.—*Newark Times.*

CEMENT FOR CHINA, &c.

The *Journal des Connaissances Usuelles* publishes the following recipe as one of the best cements for china, glass, &c. "Put an ounce of mastic in a sufficient quantity of spirits of wine to dissolve it; then take an ounce of isinglass, soak it in water until it is soft, and dissolve it in brandy till it is become a strong jelly, adding afterwards an ounce of well powdered gum-ammoniac. Put the two mixtures together in an earthen pipkin, and expose them to a gentle heat; when they are well mixed, pour them into a bottle, which is to be well corked. To use this cement the bottle is to be placed in hot water until it is sufficiently fluid—it is then to be applied to the fractures in the usual way. In 12 hours it will set, and the mended part become as hard as any other."

THE FARMER.

BALTIMORE, FRIDAY, MARCH 26, 1830.

☞ The preference that will be given by the public to rail-roads over canals, is strongly indicated by the fact, that from the Hudson to Lake Erie the travelling is not by the canal, but by *stages*, for greater despatch. Speed is time, and time is money. Suppose there were a conveyance from New York to Philadelphia, all the way by a good steam boat, requiring 24 hours to make the trip, and another stage on the ordinary road which would pass in *twelve hours* for the same price, is there any doubt that the stages would take all the passengers, and goods too, if they could carry them? How much more certain is it that even during the seven or eight months that canal boats *can* run, the preference would be given to fine commodious cars, handsomely fitted up with every convenience, and moving as smoothly on the road, as a boat upon the water? As before suggested, experience shews on the line of the Erie canal, that no one takes the boat who can go in the *common* stages. The only question then would seem to be, as to the practicability of adapting the *structures* of rail-roads, and their cars, to the nature of a few certain bulky commodities; those who have studied the subject declare there is no difficulty, nor any ground of apprehension on *that* point.

☞ MANGE IN DOGS.—The following recipe for the mange in dogs, which was published in the 1st number of the Turf Register, has been found so effectual that we are induced to publish it in the Farmer. About a week ago it was tried on a dog severely afflicted with the mange—so much so that the owner believed he could not live over a few days—and it has perfectly cured him, even in this short time.

RECIPE.—Take one pint of fish oil, one pint of spirits of turpentine, one pint of soft soap, and one pint of flour of sulphur; mix these well together, and rub the mixture well over the dog, especially into the parts most affected, and tie up the dog for a day or two

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An experimentalist in Hampshire is at this time actually cramming a turkey with *uncracked walnuts*, giving the poor creature only one the first day, two the second, and so on in arithmetical progression for thirteen days, at the end of which time he asserts the bird will be fat, and of superior flavour. The custom, he says, is common in Greece.—*Morning paper.*

[The above process is known by officers of our navy to be practised with success on the Mediterranean.]

LATEST FOREIGN NEWS.

London and Liverpool papers to the 15th February, have been received at New York, but they contain nothing new. Strenuous efforts were making to oppose a renewal of the East India company's charter. Our minister, Mr. McLane, continued to have frequent interviews with the British cabinet.

The Liverpool papers state the distresses of the poor in that city as unusually and insupportably severe.—Thousands and thousands of the laboring and industrious classes are spoken of as having been compelled to ask for charitable assistance.

In the House of Lords, Lord Holland on the 12th introduced a motion, which he supported in an elaborate speech, that there should be no pacification or settlement of Greece, which would not give that country an extent of territory sufficient to enable her to preserve her independence by land and by sea; and that no government should be imposed on her which was not consonant with the wishes of the people. In the course of his remarks he took occasion to direct much censure against ministers for the vacilitating policy which had been pursued by England in the question of Greek independence, as well as in relation to the general policy towards the Ottoman Porte, during the struggle between Russia and Turkey. His motion and speech excited much discussion and rejoinder, and among others, the Duke of Wellington replied at considerable length. He advocated a pacific policy with great earnestness, but at the same time strongly insisted on the unusually prepared condition of England to enter into a necessary war. The following is his language on this head, as reported in the Courier of the 13th

"If it were our policy to engage in the contest as a belligerent, never was the country in a better condition for doing so. I firmly believe, continued the Noble Duke, "that notwithstanding the present distress of the country, never was it in a state in which it could embark in a war with so many advantages. I say that I firmly believe its resources and capabilities of sustaining the burden of a contest, and the efficacy of all the departments of the public service, are superior now to what they have ever been, at least within my recollection—aye, even to what they were when, as my noble friend, (the Earl of Aberdeen) observed in his speech this evening, all Europe was arrayed in arms against us."

Assassination of Dr. Schulz.—"A letter from Tiflis, of the 1st ult., announces the assassination of Doctor Schulz, Professor of the University of Giessen, who had been sent out at the expense of the king of France to visit Asiatic Turkey and Persia for scientific and literary purposes. The melancholy event occurred in Curdistan, on the frontiers of Inal Huerile, between the villages of Bash-Kullad and Perihan-Nichin. Two servants, a soldier and a Persian serjeant, who accompanied the unfortunate traveller, were likewise assassinated. Colonel McDonald, at whose house the Doctor had received the warmest hospitality during his stay at Tauris, immediately sent off a confidential person for the purpose of collecting if possible, the papers and effects of Mr. Schulz, and, in concert with the Russian Ambassador, took the first step towards the discovery of the assassins.

LIVERPOOL, *Feb.* 16, 1830.

Our last circular was under date of 1st inst. since when our Cotton market has been dull and gradually declining, prices being now ¼ per lb. lower. The import for a fortnight past amounts to about 44,000 bales, of which 30,000 bales are American, chiefly new Upland, and it has been very freely offered at the above depression. There is now, however, a better demand, with rather more firmness on the part of holders, and the appearance of a more steady market. The weight of the business is in new Upland at 6 1-8 to 6 5-8; and some small parcels, particularly prime, at 6¾, chiefly 6 5-8 per lb. The sales last week amounted to 11,700 bales, of which 8,300 were Upland at 5¾ to 7; 360 Orleans at 6¼ to 7 5-8, with 25 at 8; 250 Alabama at 6 to 6¼; and 60 at 11½ to 15½. The sales of all sorts yesterday were computed at about 2,500 bales.—Sea Island is extremely dull, and prices almost nominal. Two or three cargoes of the new crop of Orleans have arrived, but not yet brought upon the market.

There has been some speculative demand for bonded flour, and in the last ten days about 5000 barrels have been sold at 25s. to 27s. per lb. The last sale was about 500 bls. fresh New York at 26s. 6d. There has latterly been more demand for fine wheat in the different corn markets, and at better prices; but the averages have not advanced; and the duty on flour remains at 18s. 5¼d. per bl. The duty on Indian corn is still 18s. 4d. per quarter. The export demand for flour is almost suspended.

In flaxseed but little has yet been done; New York seed may be quoted 55s. per cask. Some small parcels of new American red clover seed have been sold at 80s. to 84s. per cwt.

Cotton.—Upland, new, 6¼ to 6¾; do old, 5 3-8 to 6½; Orleans, 6 to 7¾; Alabama, &c. 5 3-8 to 6 5-8; S. Island, 11 to 20; Stained, 5½ to 11.

Flour.—Free, per brl. 34s. to 38s.; do in bond 25s. to 26s. 6d.

Wheat.—Per 70 lbs. 7s. 4d. to 9s. 6d.; Indian corn, free, per qr. 32s. to 35s.; do in bond, 22s. to 23s.; rice, do 18s. 6d. to 16s. 6d.; flaxseed, 55s.; clover seed, 70s. to 84s.; quer. bark, 11s. 6d. to 12s. 6d; turpentine, 9s. 6d. to 11s. 6d.; tar, 11s. to 12s. 6d.; tobacco, Va. leaf, 2½ to 5½; stemmed, 3½ to 6; Kentucky, leaf, 2¼ to 4; stemmed, 4 to 5½.

Prices Current in Boston, March 19.

Apples, best, bbl. 1.75 a 2.25 *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a —— No. 2, 6.75 a —— *Butter*, inspected, No. 1, new, lb. .12 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 4.75 a 5.00; Genesee, 5.25 a 5 62; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .62; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .7 a .8. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.50 a ——; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 25 a .33; Red do. Northern, 8; French Sugar Beet 1.50; Mangel Wurzel — *Wool*, Merino, full blood, washed, .40 a .55; do. do unwashed, .25 a .40; do. three-fourths, washed, .37 *a* .45, do. half blood, .85 *a* .38; do. quarter, washed, .30 *a* .33; Native, washed .30 a .33; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, March 20.

Bees-wax, yellow .20 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .8¾ a .11; Alabama, .9 a 12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .14 a .18. *Flax*, American, 8 a 9. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.68 a 4.81 Canal 4.75 a 5.25; Balt. Howard st. 4.37 a 5.00; Richmond city mills, 5.00; country, 4.75 a — Alexand'a, 4.75 a 4.87; Fredericksburg 4.56 a 4.68; Petersburg, 4.62 a 4.75; Rye Flour, 2.75 a 3.00; Indian Meal, per bbl. 2.62 a 2.75; per hhd 12.50 a 13.00. *Grain*, Wheat, Genesee, —— a —— Vir. 78 a 82; Rye, North, 62½ a 65; Corn, Yel. Nor. .50 a 51; Barley, — a .70; Oats, South and North, .30 a .33; Peas, white, dry, 7 bu. 5; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.25; cargo 4.25 a 4.50; Butter, N. York, 12 a 16; shipping, .6 a 10; Lard, .5 a .6; Pork, mess 11.50 a 12.00; prime 8.75 a 9.25

Prices Current in Philadelphia, March 22.

Bees-wax, yellow .21 a .23; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10 a 10.50, prime 8 a 9, cargo 7; *Butter*, No. 1, .8 a -, No. 2, 6. a--; *Cotton*, New Orleans .10½ a .12, Upland 10. a .11, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .7 a .7½. *Flour*, sup. 4.50; fine, 4.00 a 4.25; Rye 3.00 a 3.25; Corn meal, hds. 11.00 a ——, bls. 2.12½ a 2.25; *Flaxseed*, cask ——; bu. 1.28 a ——; *Grain*,—Wheat 85 a 86— Rye .50 a.52, Corn l. c. white, .32 a .33, l. c. yellow, .35 a .36, u. c. round, .40 a .42; Oats .25 a .28, Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .6½; *Oil*, linseed, 70 a 72; *Pork*, mess, 12.00 a ——, prime 10.50 a 11; cargo 9.50. *Rice*, 2.50 a 3.00; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .18 a .22, half blood .26 a —; three quarters blood .28 a .32, full blood 28 a .32; unwashed, generally 6 cents less, according to quality.

FRUIT TREES, &c. GRAPE VINES AND GREEN HOUSE PLANTS.

LINNÆAN BOTANIC GARDEN AND NURSERIES, near New York, WM. PRINCE, Proprietor. The Fruit and Ornamental Trees comprised in this immense collection are now offered for sale at the reduced prices stated in the New Catalogues, and the quality of the trees surpasses any former period. Among the fruits are Peaches, Apricots, Nectarines, on *Plum Stocks.*

Grapes Vines—about 100,000 are offered for sale, and the finest Wine Grapes of Burgundy, Champagne, the Rhine, and Tokay, will be supplied at $25 per hundred, and mixed sorts at $12 to $15—White or Golden Chasselas for the table, $25 per hundred.

In the Green house collection are the following very rare kinds, many of which are in no other American collection—Cheirostemon Platanoides, Astrapea, Wallichi, Banksia, 7 species, Brixia Spinosa, Madagascariensis, and Crysophylla, Nerium Tinctorium, Plumeria Rubra, Ficus Vestita, Macrophylla, Aquatica, &c. Ardisia Littoralis, Solanacea, Colorata, &c. Hibiscus Rosa Sinensis of 6 varieties; Protea, 14 fine species; Yellow tea Scented and yellow Banksian Roses; New white tea scented Rose; Amaryllis Tortulliflora, Veniflora, Venosa, Superba, Punctata, Attenuata, Gigantea, Stellaris, Coccinea, Fulgida, Princeps, and about 60 other varieties, of the Cammellia, Japonica or Japan Rose, above 50 varieties including all the new and very estimable ones from Chandler and Buckingham's London collection. The prices of these have been greatly reduced. Catalogues *gratis*, to be had of GIDEON B. SMITH, Agent.

Office of the American Farmer, Baltimore.

N. B. The New Catalogues of Green house plants, with prices greatly reduced, have been received and may be had of G. B. S.

A DESIRABLE FARM FOR SALE.

The subscriber is desirous of disposing of a portion of the tract of land upon which he resides, lying on West river, in Anne Arundel county, and state of Maryland.

The part which he proposes to sell, containing about 500 acres, unites in an eminent degree the advantages of health, beauty of prospect, and fertility of soil; is easy of access to the markets of Washington and Baltimore, being only twenty-eight miles east of the former, and forty south of the latter, and is situated in a neighbourhood justly and extensively known, and valued for the excellence of its society.

The soil originally fertile, has been improved highly, and may in its present condition be relied on, if properly cultivated, to produce 20 bushels of wheat, or 1000 lbs. of tobacco throughout, to the acre. On the adjacent portion of the estate, there is an extensive park of fallow deer, from which the purchaser might readily stock another without trouble or expense. The terms would be made easy, one third only of the purchase money being required in cash. For the satisfaction of both parties, the subscriber invites the personal examination, of any person disposed to purchase, especially during the month of June, when all the crops will be in a state of forwardness, which will enable them to judge of the accuracy of the above estimates of their products. J. MERCER.

Cedar Park, March 20th, 1830.

FOR SALE,

A very valuable JACK and JENNY, both young and well grown; the JACK is upwards of 13 hands, the JENNY more than 14, and perhaps the largest and handsomest in America. These fine animals are of the best blood, to be had at Malta, where they were selected for Capt. Downes of the Navy, who having no use for them himself, nor any view to profit in importing them, has left them under the care of the Editor of the American Farmer for sale. To save trouble, the two may be had for $400, or either separately, for $250.

FOR SALE,

A remarkably beautiful colt, three years old in June next, a bright sorrel, with no mark but a small star in the forehead.—He was got by the celebrated horse, Old Friendship, and out of a remarkably fine Hiatoga mare; a race highly and justly reputed in Virginia.

For the terms, or further particulars, apply to the Editor of the American Farmer.

GARDEN & FIELD SEEDS.

J. S. EASTMAN, at No. 36 West Pratt-street, would inform his customers and the Public generally, that he has now on hand a general assortment of Messrs. D. & C. Landreth's GARDEN SEEDS ,of Philadelphia—who have given the following information respecting their Seeds, viz:

For the information of those who may be interested and unacquainted with the fact, they beg to say, that all Seeds sold by them (with a very unimportant exception) are grown upon their own grounds: a portion of which is separated two miles; the more effectually to obviate the well known propensity in some Vegetables to commingle; and that from the time the Seeds are sown, until the crop comes to maturity, they are under their personal inspection—thus they are enabled most unequivocally to warrant them, as regards freshness and purity. In most articles of merchandise, the purchaser can form some estimate of the quality; but in Garden Seeds, it is not so—their age and variety are problems to all but the *positive grower*, to be solved only by a trial of them, at an expense of money, land, labour and time; hence a manifold vexation if unsuccessful. The *mere vender*, who depends upon foreign growth or transient purchases for his supply, though he may have exercised his judgment upon Seeds for a lifetime, yet cannot possibly avoid deception only by actual test, which requires a length of time frequently longer than the interim between their reception and the season of demand; hence a decided advantage in dealing with *first hands.*

Constantly on hand, Clover, Orchard Grass and Herds GRASS SEEDS, and a general assortment of the most improved AGRICULTURAL IMPLEMENTS, &c. &c.

ALMANAC.

1830. MARCH—APRIL.	SUN. Rises.		Sets.		Length of days.		Moon sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 27	5	52	6	8	12	16	9	45
Sunday,...... 28	5	50	6	10	12	20	10	44
Monday,..... 29	5	49	6	11	12	22	11	50
Tuesday,.... 30	5	48	6	12	12	24	morn.	
Wednesday, 31	5	47	6	13	12	26	0	50
Thursday,... 1	5	45	6	15	12	30	2	25
Friday,....... 2	5	44	6	16	12	32	3	13

Moon—First Quarter, 31st, 0h. 51m. Even.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKETS.—We have scarcely any change to notice in our market. Howard street flour has varied a trifle, and one sale has been made from stores at $4.50, four months. The cash price may be considered as quoted; the wagon price is $4.25. There were two loads of good red Susquehanna wheat sold yesterday at 85 cents. Beef continues to maintain the prices of last week—the lower qualities have advanced 25 cts.

TOBACCO.--Seconds, as in quality, 4.00 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 5.00 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 119 hhds Maryland, 16 hhds Ohio, and 2 hhds Pennsylvania; total 137 hhds.

FLOUR—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.37½ *a* 4.44; city mills, 4.00 *a* 4.25; Susquehanna, 4.12½ *a* 4.25. CORN MEAL, bbl. 2.25—GRAIN; best red wheat, 80 *a* .85; best white do. .87½ *a* .90, ordinary to good, 75 *a* 80—CORN, white, .33 *a* —— yellow .33½ *a* ——RYE, .48 *a* .50—OATS, .26 *a* —— BEANS, 90 *a* 1.00—PEAS, .65—CLOVER SEED, 4.75 *a* 5.00 —TIMOTHY, 2.50—ORCHARD GRASS, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—BARLEY, 55 *a* 60—FLAXSEED, 1.06 *a* 1.12½-COTTON, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½*a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½— Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .20 *a* .——; in bbls. 22½ *a* 23½—WOOL, common, unwashed, lb. .15 *a* .16— washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .3—; accord'g to qual.-HEMP Russia, ton, $215 *a* 220; Country, dew-rotted, 120*a* 140-water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.25 *a* —— No. 2, 6.00—No. 3, 3.50 *a* 3.62——BACON, hams, Balt. cured, .9 *a* .9½—Feathers, .30 *a* ——Plaster Paris, cargo price per ton, 5.00 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.75 *a* 5.50—Pine Wood, by the vessel load, 2.12½ *a* ——Oak Wood, 2.50 *a* ——Hickory, 3.75.

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Printed every Friday, at Five Dollars per annum, for
JOHN S. SKINNER, Editor, by JOHN D. TOY.

AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

OF THE CULTURE OF LEGUMINOUS FIELD-PLANTS.

The seed of the cultivated legumes are considered to be *the most nutritive of vegetable substances* grown in temperate climates. They contain a large proportion of matter analogous to animal substances, having when dry the appearance of glue, and equally nourishing as gluten. To the healthy workman this substance supplies the place of animal food; and Von Thaer states, that in Germany neither sailors nor land laborers are content, unless they receive a meal of legumes at least twice a week. The straw or haulm, he says, cut before it is dead ripe is more nourishing than that of any of the cereal grasses. But leguminous plants are not only more than all others nourishing to man and animals, but even to vegetables they may be said to supply food; since they are not only known to be less exhausting to the soil than most other plants, but some of them, and more especially the lupin, have been ploughed in green as manure from the earliest times. Many scientific agriculturists consider a luxuriant crop of pease or tares as nourishing the soil by stagnating carbonic acid gas on its surface; which corresponds with the universal opinion of their being equal to a fallow, and with the value set on them in rotation, as already explained. The legumes cultivated in British farming are the pea, bean, tare, and vetch, to which might be added the lentil, kidneybean, and chick pea.

The Pea.—Pisum sativum, L. *Diadel. Decan.* L. and *Leguminoseæ*, J. *Les Pois,* Fr.; *Erbse,* Ger. and *Piscello*, Ital.

The pea is *the most esteemed legume in field cultivation* both for its seed and haulm. It is supposed to be a native of the south of Europe, and was cultivated by the Greeks and Romans, and in this country from time immemorial, though its culture appears to have diminished since the more general introduction of herbage plants and roots; and excepting near large towns for gathering green, and in a few places for boiling the pea, has given way to the bean or to a mixture of pease and beans. There are various inducements, however, to the cultivation of pease in dry warm soils near large towns. When the crop is good and gathered green, few pay better: the payment is always in cash, and comes into the pocket of the farmer in time to meet the exigencies of the hay, and sometimes even of the corn harvest. The ground after the pease have been removed is readily prepared for turnips, which also pay well as a retail crop near towns; and the haulm is good fodder.

The varieties of the pea are numerous; but they may be divided into two classes; those grown for the ripened seed, and those grown for gathering in a green state. The culture of the latter is chiefly near large towns, and may be considered as in part belonging to gardening rather than agriculture.

The grey varieties are, the early grey, the late grey, and the purple grey; to which some add the Marlborough grey, and horn grey

The white varieties grown in the fields are the pearl, early charlton, golden hotspur, the common white or Suffolk, and other Suffolk varieties.

New varieties of the pea are readily procured by selection or impregnation.

In the *choice* of sorts, where it is desired to grow grey pease for the sake of the seeds or corn, the early variety is to be preferred in late situations, and the late variety in early ones; but when it is intended to grow them chiefly for covering the ground and for the haulm, then the late varieties claim the preference, and especially the purple grey. Of white pease, to be grown for gathering green, the Charlton is the earliest, and the pearl or common Suffolk the most prolific. When white peas are grown for boilers, that is for splitting, the pearl and Suffolk are also the best sorts. It is supposed by some to be of considerable importance in the economy of a farm, when the nature of the soil is suitable, to have recourse to the early sorts; as by such means the crops may in many cases be cut and secured while there is leisure, before the commencement of the wheat harvest. And that where the nature of the soil is dry and warm, and the pea crop of a sufficiently forward kind, it may be easy to obtain a crop of turnips from the same land in the same year, as has been suggested above. But in this view it is the best practice to put the crops in in the row method, and keep them perfectly clean by means of attentive hand and horse hoeing; as in that way the land will be in such a state of preparation for the turnips, as only to require a slight ploughing, which may be done as fast as the pea crop is removed, and the turnip seed drilled in as quickly as possible upon the newly turned up earth. In some particular districts a third crop is even put into the same land, the turnips being sold off in the autumn and replaced by coleworts, for the purpose of greens in the following spring. This, according to Middleton, is the practice in some places in Middlesex. But it is obviously a method of cultivation that can only be attempted on the warm and fertile kinds of turnip soil, and where the pea crops are early; on the cold heavy and wet descriptions of land, it is obviously impracticable, and wholly improper.

The *soil* best suited for pease is a dry calcareous sand; it should be in good tilth, not too rich nor dunged along with the crop. In Norfolk and Suffolk pease are often sown on clover leys after one furrow, or after corn crops on two furrows, one given in autumn, and the other early in spring.

The *climate* required by the pea is dry and not over warm, for which reason, as the seasons in this country are very often moist and sometimes exceedingly dry and hot in June and July, the pea is one of the most uncertain of field crops.

The *season of sowing* must differ considerably according to the intentions of the cultivator. When they are grown for podding early for sale green, they should be sown at different times, from January to the end of March, beginning with the dryest and most reduced sorts of land; and in this intention in some southern counties they are put in in the autumn. For the general crops from February to April, as soon as the lands can be brought into proper order is the proper season; the grey sorts being employed in the early sowings, and the white sorts in the later. Young says, that where these crops cannot be put in in February, they should always be completed in the following month. It is observed by the same writer, in sowing on layers, that the white boiling pea, of many sorts and under various names, is more tender than the greys, and various kinds of hog pease; but he has many times put them into the ground in February, and though very smart frosts followed, they received no injury. He has uniformly found, that the earlier they were sown the better. There is also a particular motive for being as early as possible: that is, to get them off in time for turnips. This is most profitable husbandry, and should never be neglected. If they are sown in this month and a right sort chosen, they will be off the land in June, so that turnips may follow at the common time of sowing that crop.

Steeping the seed in water is sometimes practised in late sowings.

The *quantity of seed* must be different in different cases and circumstances, and according to the time and manner in which the crop is put into the ground; but in general, it may be from two and a half to three bushels, the early sowings having the largest proportion of seed. In planting every flag, Young says, two bushels and a half is the usual proportion; but when drilled at greater distances, six or seven pecks will answer.

The most common mode of sowing pease is broadcast; but the advantages of the row culture in the case of a crop so early committed to the soil must be obvious. The best farmers therefore always sow pease in drills either after the plough, the seed being deposited commonly in every second or third furrow, or if the land is in a pulverised state by drawing drills with a machine or by ribbing. In Norfolk and Suffolk pease are generally dibbled on the back of the furrow, sometimes one and sometimes two rows on each; but dibbling in no manner appears to us so well suited for a farmer's purpose as the drill. In Kent, where immense quantities of pease are grown both for gathering green and for selling ripe to the seedsmen, they are generally sown in rows from eighteen inches to three feet asunder, according to the kind, and well cultivated between. Pease laid a foot below the surface will vegetate; but the most approved depth is six inches in light soil, and four inches in clay soil, for which reason they ought to be sown under furrow when the ploughing is delayed till spring. Of all grain, beans excepted, they are the least in danger of being buried.

The after culture given to pease is that of hoeing, either by hand or horse. Where the method of hand-culture prevails, it is the general custom to have recourse to two hoeings; the first when the plants are about two or three inches in height, and again just before the period in which they come into blossom. In this way the vigorous vegetation of the young crop is secured, and a fresh supply of nourishment afforded for the setting of the pods and the filling of the pease. At the last of these operations the rows should be laid down, and the earth well placed up to them, the weeds being previously extirpated by hand labor. It has been stated, that in some parts of Kent, where this sort of crop is múch grown, it is the practice, when the distance of the rows is sufficiently great, to prevent the vegetation of weeds, and forward the growth of pea crops, by occasionally horse-hoeing, and the use of the brake-harrow, the mould being laid up to the roots of the plants at the last operation by fixing a piece of wood to the harrow. This should, however, only be laid up on one side, the pease being always placed up to that which is the most fully exposed to the effects of the sun.

In harvesting the ripened pea considerable care is requisite, both on account of the seed and haulm. When pea crops become ripe they wither and turn brown in the haulm or straw, and the pods begin to open. In this state they should be cut as soon as possible, in order that there may be the least loss sustained by their shedding. It is observed that in the late or general crops, after they are reaped or rather cut up by means of a hook, it is the usual practice to put them up into small heaps, termed wads, which are formed by setting small parcels against each other, in order that they may be more perfectly dried both in the seed and stem, and be kept from being injured by the moisture of the ground. But in the early crops, the haulm is hooked up into loose open heaps, which, as soon as they are perfectly dry, are removed from the ground and put into stacks for the purpose of being converted to the food of animals, on which they are said to thrive nearly as well as on hay. When intended for horses, the best method would seem to be that of having them cut into chaff and mixed with their other food. Young says, that forward white pease will be fit to cut early in July; if the crop is very great they must be hooked; but if small, or only middling, mowing will be sufficient. The stalks and leaves of pease being very succulent, they should be taken good care of in wet weather: the tufts, called wads or heaps, should be turned, or they will receive damage. White pease should always be perfectly dry before they are housed, or they will sell but indifferently, as the brightness and plumpness of the grain are considered at market more than with hog-pease. The straw also, if well harvested, is very good fodder for all sorts of cattle and for sheep; but if it receives much wet, or if the heaps are not turned, it can be used only to litter the farm-yard with. It is the practice in some districts to remove the haulm as soon as it has been cut up by hooks constructed with sharp edges for the purpose, to every fifth ridge, or even into an adjoining grass field, in order that it may be the better cured for use as cattle food, and at the same time allow of the land being immediately prepared for the succeeding crop. When wet weather happens whilst the pease lie in wads, it occasions a considerable loss, many of them being shed in the field, and of those that remain a great part will be so considerably injured, as to render the sample of little value. This inability in pease to resist a wet harvest, together with the great uncertainty throughout their growth, and the frequent inadequate return in proportion to the length of haulm, has discouraged many farmers from sowing so large a portion of this pulse as of other grain; though on light lands which are in tolerable heart, the profit, in a good year, is far from inconsiderable.

In gathering green pease for the market, it is frequently a practice with the large cultivators of early green pea crops in the neighborhood of London, to dispose of them, by the acre, to inferior persons, who procure the podders; but the smaller farmers, for the most part, provide this description of people themselves, who generally apply at the proper season for the purpose. The business of picking or podding the pease is usually performed by the laborers at a fixed price for the sack, of four heaped bushels. The number of this sort of persons is generally in the proportion of about four to the acre, the labor proceeding on the Sundays as well as other days. It is sometimes the custom to pick the crops over twice, after which the rest are suffered to stand till they become ripe for the purpose of seed. This, however, mostly arises from the want of pickers, as it is considered as a loss, from the pease being less profitable in their ripe state than when green. Besides, they are often improper for the purpose of seed, as being the worst part of the crop. It is therefore better to have them clear picked when hands can be procured. After this they are loaded into carts, and sent off at suitable times, according to the distance of the situation, so as to be delivered to the salesmen in the different markets from about three to five o'clock in the morning. In many cases in other parts, the early gatherings are, however, sent to the markets in half-bushel sieves, and are frequently disposed of at the high price of five shillings the sieve; but at the after periods they are usually conveyed in sacks of a narrow form, made for the purpose, which contain about three bushels each, which, in the more early parts of the season, often fetch twelve or fourteen shillings the sack, but afterwards mostly decline considerably; in some seasons so much as scarcely to repay the expenses. This sort of crop affords the most profit in such pea seasons as are inclined to be cool, as under such circumstances the pease are most retarded in their maturation or ripening, and of course the markets kept from being over abundantly supplied.

The threshing of pease requires less labor than that of any other crop. Where the haulm is wished to be preserved entire it is best done by hand; as the threshing-machine is apt to reduce it to chaff. But where the fodder of pease is to be given immediately to horses on the spot, the breaking it is no disadvantage.

The produce of the pea in ripened seeds is supposed by some to be from three and a half to four quarters the acre; others, however, as Donaldson, imagine the average of any two crops together not more than about twelve bushels; and that on the whole, if the value of the produce be merely attended to, it may be considered as a less profitable crop than most others. But as a means of ameliorating and improving the soil at the same time, it is esteemed as of great value.

With respect to *the produce in green pease* in the husk, the average of the early crops in Middlesex is supposed to be from about twenty-five to thirty sacks the acre, which, selling at from eight to eighteen shillings the sack, afford about eighteen pounds the acre. The author of *The Synopsis of Husbandry,* however, states the produce about Dartford, in the county of Kent, at about forty sacks the acre, though, he says, fifty have sometimes been gathered from that space of land.

The produce of pease in straw is very uncertain, depending so much on the sort and the season: in general it is much more bulky than that of the cereal grasses; but may be compressed into very little room.

The produce of pease in flour is as 3 to 2 of the bulk in grain, and husked and split for soups as 4 to 2. A thousand parts of pea flour afforded Sir H. Davy 574 parts of nutritive or soluble matter, viz. 501 of mucilage or vegetable animal matter, 22 of sugar, 35 of gluten, and 16 of extract or matter rendered insoluble during the operation.

The use of pease for soups, puddings, and other culinary purposes, is well known. In some places porridge, brose, and bread is made of pease-flour, and reckoned very wholesome and substantial. In Stirlingshire it is customary to give pease or bean biscuits to horses while in the yoke as a refreshment. The portion of pease that is not consumed as human food is mostly appropriated to the purposes of fattening hogs and other sorts of domestic animals; and, in particular instances, supplies the place of beans, as the provender of laboring horses; but, care should be taken, when used in this way, that they be sufficiently dry, as, when given in the green state, they are said to produce the gripes, and other bowel complaints, in those animals. Bannister, after observing that the haulm is a very wholesome food for cattle of every kind, says, there is generally a considerable demand for pease of every denomination in the market, the uses to which they may be applied being so many and so various. The boilers, or yellow pease, always go off briskly; and the hog-pease usually sell for 6d. or 1s. per quarter more than beans. For feeding swine the pea is much better adapted than the bean, it having been demonstrated by experience, that hogs fat more kindly when fed with this grain than on beans; and, what is not easy to be accounted for, the flesh of swine which have been fed on pease, it is said, will swell in boiling, and be well tasted; whilst the flesh of the bean-fed hog will shrink in the pot, the fat will boil out, and the meat be less delicate in flavour. It has, therefore, now become a practice with those farmers who are curious in their pork, to feed their hogs on pease and barley-meal, and if they have no pease of their own growth, they rather choose to be at the expense of buying them, than suffer their hogs to eat beans. Nay, so far, says he, do some of them carry their prejudice in this particular, as to reject the grey pease for this use, as bearing too near an affinity to the bean, and therefore reserve their growths of white pease solely for hog fatting.

In boiling split pease, some samples, without reference to variety, fall or moulder down freely into pulp, while others continue to maintain their form. The former are called boilers. This property of boiling depends on the soil; stiff land, or sandy land, that has been limed or marled uniformly, produces pease that will not melt in boiling, no matter what the variety may be.

Pease straw cut green and dried is reckoned as nourishing as hay, and is considered as excellent for sheep.

In the *saving of any particular sorts of peas for seed,* they should be carefully looked over while in flower, in order to draw out all such plants as are not of the right sort; as there will always be, in every sort, some roguish plants, which, if left to mix, will degenerate the kind. As many rows as may be thought sufficient to furnish the desired quantity of seed should then be marked out, and left till their pods turn brown, and begin to split, when they should immediately be gathered up, with the haulm; and if the farmer has not room to stack them till winter, they may be threshed out as soon as they are dry, and put up in sacks for use; but particular care should be taken not to let them remain too long abroad after they are ripe; as wet would rot them; and heat, after a shower of rain, make their pods burst in such a manner that the greater part of their seeds would be lost.

The diseases of pease are few, and chiefly the worm in the pod and the fly on the leaves and flower. They are also liable to be mildewed or blighted. None of these evils, however, are very common; and there is no known way of preventing them but by judicious culture.

(From Lorain's Husbandry.)

Instructions for growing turnips and maize on grass grounds, without the use of dung. Also, for cultivating fallow crops, sown broad cast, to be followed by small grain. The economy of buckwheat considered.

Turnips require a richer soil than either potatoes or maize; therefore, this plant should not be cultivated by the circumscribed farmer, but on that portion of his grounds where farm yard manure is liberally spread, except the soil be recently cleared from its wood, or is deep and rich, and also covered by a luxuriant crop of grass.

This should be turned under by trench ploughing, but not more than eight inches deep, lest the enriching matters may not be sufficient to excite a proper fermentation for the growth of this plant. The ground should be ploughed in time to admit sufficient fermentation of the vegetable substances to promote a rapid growth of the plants. If this be not done, they will be in imminent danger of being cut off by the fly before their rough leaves are formed. The proper management of this crop has been described in my book on Cultivation.

The circumscribed cultivator may obtain good crops of maize from that portion of his grounds which cannot be dunged by him, unless they have been too much exhausted, and, at the same time, gradually enrich the land. In this case a good crop of grass should be turned under in the fall. This will secure the rich juices contained in the grasses: if ploughing be deferred until spring, a great part of these juices will be scattered in the air, or exhaled by the sun, &c. As the weather may favour the growth of the grass, especially of the hardy kinds, the furrow slices should be levelled by the roller, and the seams between them well closed with the tined harrow. If it be found that the grasses have grown so much as to promise injury to the crop, before the plants have grown large enough to be cultivated, they should be eradicated by the hoe harrow, with the tined harrow following it previously to planting.

If the soil be a good one, it ought to be trench ploughed. It should, however, be recollected, that notwithstanding the soil is good, turning it up eight inches deep, places that portion of it which is least favourable to vegetation uppermost: consequently the furrows for planting had better exceed, than fall short of being three inches deep.

The early growth, ripening, and product of the crop will be greatly promoted by coating the seed well with gypsum. If that substance cannot be had, a small handful of ashes spread over the seed in each cluster before it is covered, will produce nearly the same effect. If the ashes have been leached, the quantity should be increased.

Practice seems to have determined that, when maize is planted in rows, five feet and a half is a good width for the intervals. Observation also appears to favour this width, as on an average a full sized plant measures, as the leaves naturally hang, about four feet and a half across the widest part of it. The leaves, except those which may happen to get entangled, naturally incline toward the intervals, in search of light, air and the nutriment gathered from the atmosphere.

Not more than one plant should be left standing at the distance of eighteen inches apart in the rows, even when the soil is good, and prepared as above directed. This will introduce 5,280 plants to the acre, which are sufficient when either gypsum or ashes are applied.

If, however, thirty bushels of lime be spread, and managed as explained in my book on Cultivation, two plants may be left standing at the distance of two feet asunder in rows. This will introduce, 7,920 plants to the acre, It should be observed that, where gypsum can be had, it will greatly increase the crops of small grain grown on the grounds that cannot be dunged, if the seed be well coated with this substance previously to its being sown.*

The number of corn plants mentioned above, will be found too many for a soil that is not very good. If it be only middling, and the intervals five feet and a half apart, but one plant should be left standing at the distance of two feet in the rows. This arrangement introduces 3,960 plants per acre, which will be sufficient to grow thirty-five to forty bushels of shelled corn to the acre. In such grounds, six inches will be sufficiently deep for ploughing; where the tops and roots of the grasses alone are used for manure. If lime be spread and ordered in the manner before directed, two plants may be left standing at the distance of two feet and a half asunder in the rows. This introduces 6,336 plants to the acre, and these are sufficient to grow from sixty to sixty-five bushels of shelled corn per acre.

If the crop of grass, to be turned under for maize, be deficient, this ought to be made up by spreading either straw, leaves, cornstalks, weeds, or other offal vegetation in sufficient quantity, and turning them with the grasses under the soil. The dried vegetable matters will be better prepared to promote the growth of the plants by lying under the sod through the winter. The farmer, however, should remember, that if they are hard woody substances, such as cornstalks, &c, they cannot be ploughed under in large quantities, unless a sufficient decomposition has been previously effected. In either of the cases mentioned above, the maize should be followed by small grain, and grass seed sown on it. The grounds ought to remain three years in grass, managed as has been pointed out, before they are again turned up for fallow crops.

Here it may be proper to observe, that maize is cultivated with less labour when planted in clusters at right angles, than when it is arranged in rows; therefore, when the plants are not too numerous to be introduced at right angles in the usual manner, it may be best to plant in this way. I have never seen corn ear or fill better than when it was planted at right angles, of from four and a half to five and a half feet asunder, even when four plants were generally left standing in each cluster at the wider distance. We certainly know too little of the proper arrangement of this plant: consequently have much yet to learn. It may, however, be proper to remark, that until mathematical precision governs our practice, at least in our fallow crops, but little of the proper arrangement of this, or any other, plant can be known.

Beans and peas are unquestionably very lenient plants. Either may be cultivated on such soils as are too thin for more exhausting fallow crops, but are, at the same time, good enough to produce a profitable crop of them, and the small grain and grasses which should follow them.

For these fallow crops the circumscribed farmer will also find his dried offal vegetable matters very profitable manure, if the grasses, to be ploughed under for them, in the fall, are not found sufficient to promise profitable crops, and the improvement of the soil.

Here I beg leave to observe that no round of crops can be justly considered profitable, unless the soil be actually ameliorated by the system pursued: more especially where the circumscribed farmer is concerned; for he can have no rational prospect of suddenly recruiting the grounds, which his folly or avarice has exhausted.

Cultivated fallow crops properly ordered are, without question, the best, and most profitable preparation of the soil for small grain. It, however, clearly appears, that the labour of planting, horse and hand hoeing, &c. will frequently render it impossible for the circumscribed farmer to pursue this invaluable practice, in that part of his grounds on which he may safely and profitably grow fallow crops without dung, to be fallowed by small grain, and the grasses after it. It therefore becomes necessary to point out how he may deviate from this better practice, without preventing the improvement of his grounds.

The Albany and lady pea are lenient plants. Notwithstanding many assert that neither of them is profitable, I believe this opinion does not originate in any real deficiency in the plants themselves, or in the climate. It seems to arise, too generally, either from an improper, or ineffectual cultivation, or an impoverished soil. It is, however, evident that the most prolific plants cultivated by us, are, in general, still more uncertain and unproductive, when they are no better treated. The cause of this is evident; for but few, if any, of these plants are capable of living on so little nutriment.

Buckwheat is considered by too many an exhausting plant, although it will live and produce crops on much less nutriment than most other plants. This superior property seems to have induced many farmers to continue the growth of it, on such soils as would not grow plants which require more food, until they have become so much exhausted, that even crops of buckwheat worth cultivating, could not be obtained from them: as this was the last plant in general use which *did*, or *could* find a scanty support in the soil, which folly or avarice had exhausted, the cultivator transfers the blame, originating in his own wretched mismanagement, to it.

These facts seem to prove that buckwheat may be justly ranked among the most lenient plants commonly cultivated by us. No question but peas and beans, or any other lenient plant, would be thought equally exhausting by these cultivators, if they had happened to be as generally cultivated by them.

There is no plant that will not eventually exhaust the soil, when a system of management calculated to effect the evil is continually pursued. It is, however, equally evident, that there is none, tobacco not excepted, that may not be grown without producing this injurious effect, provided proper management be pursued. My countrymen on the Eastern Shore of Maryland too generally blame tobacco and maize for impoverishing their soil. They might, however, have readily obtained much greater products from both those and every other plant cultivated by them, and at the same time improved, instead of impoverishing the soil.

In this I cannot be readily mistaken, as I lived forty-two years among them, and was not an idle spectator of the progress of farming, after I became old enough to observe and reflect.

The foliage of buckwheat seems to be well calculated to gather large supplies from the atmosphere. The body of the plant appears to consist of a much larger proportion of water than plants in general. This not only appears in the texture of it when green, but also in the straw after the crop is gathered. The slovenly practice of threshing out the grain on the soil where it grew, and leaving the straw to rot in heaps where it was threshed, too commonly occurs; this clearly proves, that after the water contained in it has evaporated, the more solid contents of the straw are trivial indeed, when compared with the bulk which had at first appeared in the heaps. Hence it is, that farmers remark that buckwheat straw makes but little manure. Sheep, however, will eat it, so will horned cattle, especially if it be salted, and they cannot get salt in any other way. therefore it may be profitably used in this way when the farmer's hay happens to fall short; also for litters, as the open texture of it is well calculated to imbibe much of the juices of the cattle yard.

I have been induced to defend the character and economy of this plant, lest the injurious, and as I believe very erroneous opinion of its exhausting properties, might deter some cultivators from growing it: also, that notwithstanding peas may be more profitable if sold for exportation, but little of them are consumed in our families, and farmers have not been accustomed to feed their live stock with them: whereas buckwheat is extensively and profitably used for both these purposes. The farmer has been accustomed to cultivate it, and the seed is much cheaper, and more readily procured, consequently he will greatly prefer sowing it broad cast, as a preparatory crop for small grain, provided it should be found equal to peas for that purpose.

I believe buckwheat may be more profitably grown if sown early in the spring. This opinion, however, may or may not be correct, as I do not profess to have any considerable practical knowledge of the cultivation of the plant.

I also suppose that if more seeds were sown, the plants would branch less, and the blossom and seed more generally form at or about the same time, and on or nearer to the top of the plant: of consequence much less grain would be shattered before the crop was gathered and threshed out. But in this I may also be mistaken; still I consider it proper to recommend sowing, on a small scale, double the quantity of seed which is commonly sown, and increase or decrease this quantity as observation and experience may direct.

ON BOTS IN HORSES.

J. S. Skinner, Esq.

Sir,—Having seen in the Farmer various recipes for the cure of bots in horses, none of which have given general satisfaction, if we may judge from the inquiries which are still made for remedies; I send you one, on which I have practised for more than half a century with invariable success. I received it from a German veterinarian, who came to this country with the Baron Steuben, and was attached, as farrier, to the general staff of the main army, in the years 1778 and 9. He may be remembered by some of the military gentlemen of that day, under the dignified appellaation of Count Saxe, a *nom de guerre*, given him by the Baron, on his entering our service. He was a man of great skill and celebrity in his profession. The ingredients are simple, and too mild to produce any injurious effects on the animal to whom they may be administered. They consist of new-milk, honey or molasses, common salt and water, and linseed oil. The manner of preparing and administering is as follows: as soon as the disease (the symptoms of which are unerring,) is ascertained, drench the patient, fasting if possible, with a quart of fresh milk, saturated with honey, molasses, or sugar; to be preferred in the order stated. Leave him at rest for two hours—at the expiration of which, having previously prepared some strong brine, by boiling as much common salt in water as can be dissolved in it, drench him as before, with a pint of it, when cool. After a similar period of two hours give him half a pint of linseed oil, and the remedy is complete.

The rationale, established, as I conceive, by a process I shall presently state, is as follows. It is well ascertained that bots destroy the life of a horse, by feeding on the integuments of the stomach, and finally perforating it. Preferring, however, a sweetened milk, to a flesh diet, they detach themselves from the intestines, and glut the savory beverage. When satiated, their volume becomes enlarged, the skin extended and thin; in which state, the strong brine by dissolving destroys them. The operation of the oil is to sheath the wounds they have inflicted, to aid the cathartic effects of the salt, and to carry off remaining impurities.

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* This has since been more fully explained, and the causes that produce this astonishing effect considered.

The process or experiment on which the aforegoing theory is found, shall now be stated. Some years since, when travelling, I stopped at the house of an intelligent and respectable inn-holder, in the village of Poughkeepsie, county of Dutchess, who had that morning lost a horse by bots. The remedy he had used, by advice of a physician, was spirit of turpentine; which failed of success. To satisfy himself, whether it would be effective under any circumstances, he had taken from the animal some worms after his death, and immersed them in a cup of the spirit, for the space of about an hour. He then presented to them a piece of crode flesh, to which they immediately attached themselves, and adhered so firmly as to be drawn from the vessel without loosing their hold, and appeared to have suffered no inconvenience from their immersion. I gave him my recipe, and he determined to try its effects, immediately upon a fresh parcel of worms. I could not wait to see the result; but was afterwards minutely informed by him of his process and its effects. He selected four of the largest worms he could find, together with a part of the stomach to which they were attached, and immersed the whole in the prepared milk. They immediately quitted their hold of the fragment of the stomach, and gorged the liquid. In this situation they remained two hours, without touching the flesh they had quitted. When extracted, their size was more than doubled, and their skins so thin from extension as to render them semi-transparent. They were now placed in the brine, prepared as directed, and at the expiration of two hours, they were not only lifeless, but nothing remained of them, but their heads and skins.

The following fact, will further serve to shew the complete efficacy of this remedy. At the first stage of a journey, in the month of June, having travelled moderately about twelve miles, my horse refused his feed; to which I paid little attention supposing he had been well fed before I set out: at the next stage, of about the same distance, be exhibited the most violent symptoms of a severe attack of bots. Such as great restlessness, rolling on the earth, and gnawing it—striking his feet against his abdomen, and biting his sides. I immediately administered my remedy; excepting the oil, which could not be procured. I shortly after turned him to pasture, where he soon began to eat, and the next morning was well enough to pursue his journey, without any signs of uneasiness, except when his sides were touched, which lasted but a few hours.

Horses may, by attention, be preserved at all times from a virulent attack by bots. A table spoonful of hickory ashes, with a handful of salt, mixed with their meal twice a week, will afford perfect security. Whether its operation is prophylactic or remedial is of less consequence than to be ascertained of the fact, for which I do not hesitate to vouch. Should it, however, be the latter, and that the ashes and salt destroy the erucæ in their incipient state, it may be well to be acquainted with what physicians term the pathognomonic diagnostic, or the symptoms indicating the particular disease, and no other. In this stage of it, the animal affected, every four or five minutes, gradually raises his tail above the horizontal line of his back, and then lowers it with a twitching or jerking motion; making three or four stops or stages in its passage downwards. The ashes and salt may then be given: but should the symptom continue the other remedy should be speedily resorted to, for the growth of the worm is very rapid.

The manner in which bots are produced, has been a subject of almost as much discussion, as the best mode of getting rid of them. A communication on this question made, some years since, by a Mr. Billings, to the agricultural society of Dutchess, puts it at rest. He states that he took some of the nits, attached to the hairs of a horse's legs, by what is usually called the bot bee; hatched them by the warmth of his hand; placed the vermiculi under glass, and fed them with animal food: in which situation they grew rapidly, went through the various transformations of pupa, &c. incident to the insect tribe, and terminated in the perfect bot bee, or fly. Morgan Lewis.

HORTICULTURE.

PRUNING GRAPE VINES.

J. S. Skinner, Esq.

It is often asked us, when is it the *proper time* for pruning grape vines? We observe in the works upon the vine, a great discrepancy of opinion on this particular part of its culture. Cobbett, Adlum, Prince, Loubat and Gimbrede, advocate the performance of this operation in the fall months; whilst McMahon, Forsyth, and others, contend that early spring pruning is preferable.

That this is an all important procedure to the health, duration and profit of the vine, no one can contend to the contrary; but we are inclined to believe, that the great stress urged on the *particular time* it should be done, does not deserve the consideration, which has been given it. In accordance with our observation, the *time* bears but little relation in importance to the *manner* of its performance, provided, we shall have it finished *before* the commencement of the circulation of the juices peculiar to the vegetable. Hence the difference of time, observed in the writings of the different individuals upon this subject, who have, no doubt, been guided in their choice, by the effect of climate upon the production of early and late vegetation. Some insist it should be done, about the middle of October, or at the fall of the leaf, "*rather* than defer it till spring, because the tender parts of those young shoots, if left on, are subject to decay in winter; or they are apt to grow late in the year, so the tops of the shoots are tender, and early frosts will pinch them, and then they frequently are killed down a considerable length, which weakens their roots; but if they are cut off early in autumn, the wound will heal over before bad weather, and thereby the roots will be greatly strengthened." On the other side, among the advocates for spring pruning, McMahon tells us the *proper time* for this operation, in the middle states, he conceives to be the latter end of February, or first week in March, much earlier in the southern states, and very little later in the eastern. Forsyth cautions us, not to prune till the beginning of February, unless in case of an uncommon forwardness in the season. It is common, he continues, with some, to begin pruning soon after the fall of the leaf, *before the wood becomes hard;* but if the frost set in *before the wood is hard*, especially after wet summers and autumns, it will be much injured. He has seen vines almost killed after *autumnal* pruning. In the Vine-dresser's Manual, by Thiebaut de Berneaud, which book should be in the hands of every cultivator of this most important vegetable, it is remarked, "that the principal point is to know and seize the right time for pruning. To do it too soon advances vegetation and exposes the young buds to the nipping of the cold, or even spring frosts; if too late, it retards the development of the buds, and perhaps destroys the fruit buds by their becoming drenched with the bleeding sap during the night; or perhaps a late frost happens, and finds the retarded sprouts so backward and tender that it will entirely destroy them. In some warm countries, some pruning should be performed after the fall of the leaf; it gives the grape a greater chance for ripening and becoming sugary; but to prune in fall or beginning of the winter in cold countries, is imprudent; it is proper to wait until the black frost is over; and it should only be done when the weather is fair, dry and without appearance of rain. After the sap begins to circulate, it is improper to prune the vines, unless such as are sprouting too luxuriantly, and which require to be weakened; those in a proper condition it weakens too much; they seem exhausted and yield only poor fruit." However, in despite of the directions before us, we have for these six years, pruned a large collection, both of foreign and native vines, for cuttings for the gratification of friends, in every week, from the fall of the leaf to the middle of March, without having from very close attention, even observed any injury done; and, therefore, feel satisfied, that it can be performed safely, at any time after the complete fall of the leaf, until immediately previous to the circulation of the sap, which effect, sooner or later takes place, according to climate, situation, and disposition of the vines. This process we discover, usually happens in this state, from the beginning to the middle of March, yet we are aware that certain species of the vine, are more forward and begin vegetation earlier from disposition and situation than others; but we will be in time, if pruning be done in Maryland and the other southern states, the *last week in February* or the first in March; but by no means should it be delayed longer than the middle of March. It is the *manner* of pruning that deserves our serious and attentive consideration; for on its correctness, doubtless, very much of our future success depends; the principles which should govern us in its performance are amply and satisfactorily detailed in the works of Thiebaut de Berneaud, Adlum, Prince, and Loubat. J. C. S. M.

ON THE VINE.

Columbia, S. C. March 22, 1830.

J. S. Skinner, Esq.

Dear Sir,—When I have written occasional weak essays on the culture of the vine, and sometimes on other subjects connected with agriculture, it was done certainly with a view of scattering thinly the career of my life with some specks of usefulness. I must, therefore, most sincerely regret that I may have been unwittingly the teacher of some errors. Your correspondent "M." in the American Farmer of the 12th inst. No. 52, vol. 11, has had the goodness to make some excuse for me for having said that the re-pruning grape vines after they had been nipped by the frost was attended with no injury to them, although they bled much in consequence of it. The practice being recommended in some French books induced me to try the experiment, and although I have used it every spring for six or seven years past, without stint of the pruning knife, I am bound to declare that it has not in one single instance been followed by any serious injury or diminution of the crop that I could judge of. The bleeding is certainly alarming in its appearance, and it has sometimes injured the first bud below the cut; but as at this season vegetation is very rapid, and that *the vine does not bleed when it is in full foliage,* the bleeding soon stopped of itself and in a short time the vines looked as if no such late pruning had been effected. Notwithstanding this, and even if I had not read of some undoubted cases of injury done by it, I would still recommend any operation by which the bleeding might be prevented. That which seems to promise the most effectual remedy is that proposed by Mr. Andrew Parmentier, viz: the application of pulverised plaister of paris to the wound immediately after it has been made. I presume it is the plaister as it is prepared for cement by calcination, by which its absorbent quality is probably much increased, together with that property it has of hardening very soon, or of setting, as it is I believe, technically termed. The instances of the vine being greatly injured, as given by your correspondent "M." come in such a shape as precludes any doubt on the subject, I have also tried rubbing off the frostbitten shoots; but was not pleased with the effects. In the first place, the bleeding was not fully prevented; but only considerably lessened. 2dly, the efforts of nature in this case is to repair the evil as much as possible, and it frequently induces weakly buds to be produced and expanded in the place of those broken off, to the great detriment of the buds below, which, without this, would become as stout and bear as fully as the upper ones would have done, if the frost had not injured them. Shoots that are injured by frost in the slightest degree never recover fully so as to become of suitable size and appearance, neither do they ever produce fine fruit. For these reasons, I invariably lop them off, and the lower buds readily supply their place. It is proper here to notice that, always anticipating injury by late frosts, I leave, in pruning, at least two buds more than I otherwise should. Should no frost happen to do the mischief I am prepared for, which has never yet occurred to me, I would rub off the supernumerary shoots, beginning at the lowest ones; for the upper ones are always the best. By following the above stated practice, I have never failed in obtaining a good crop, so far as the injury by the frost was concerned. To this there was, however, one exception, though it is a somewhat different case. This was in 1828. The winter had been uncommonly warm, vegetation was unusually forward, the vines had shoots three to six feet long, and the plants very full of sap, when in the beginning of April, I believe about the eighth, a most severe frost happened which killed, not only the young growth; but also, generally the growth of the preceding year, and in many instances of young vines, killed the wood of three or four years growth down to the ground. This was a most extraordinary case, and therefore my second pruning could be of no avail, and the vines bore little or no fruit.

I am much obliged to your correspondent "M." for his kindness in excusing me; but after having given the above reasons for my recommendation of a practice that has been in some cases found injurious, it will be admitted that I had not offered it on slight grounds. Without, therefore, retracing my opinion, I beg to be distinctly understood that I do not recommend to any one to follow blindly my practice; but to try it again partially and ascertain whether some kinds of vine resist the operation of the second pruning better than others, and whether strong vines in general do not suffer by it, while weak ones are injured, if so they are.

Mr. Thomas Gimbrede, in the same paper, has given us short views on this subject, and he is undoubtedly correct as far as he goes. It is perfectly true that vines may be pruned with safety, in the autumn, after the fall of the leaves; but it is equally true, I believe, that, in consequence of that slow but constant vegetation which is carried on (during the winter) with all its force to perfect the buds and wood which are left on the vine, the few buds thus left are thereby pushed more forward than they otherwise would be, will expand earlier in the spring and, therefore, be more exposed to injury by late frosts than if the pruning had been performed early in the spring; but while the weather is yet cold enough to obviate the bleeding of the vines, or at least to render it harmless. To understand this the better we must remember that, whether a vine is pruned or not, the upper buds are always the first acted upon by the sap, and that they are generally fully swelled and often expanded before the lower ones have begun to swell, many of which would not grow at all if the vine was left to itself. The principal object of pruning seems to be, to bring the fruit-bearing parts of a vine as near as possible to the old wood, and keep it within proper limits, thereby rendering the shoots stouter and more vigorous, and the fruit larger and richer than it could otherwise be. By early, or fall pruning the vine puts out earlier and is more exposed to late frosts, and by late pruning the buds are swelled and developed later and have therefore a better chance of escaping. Joined to this that a slight bleeding must have als a tendency to retard the growth. My own practice is to prune early; but it is for a different reason and with different views. It is this, that by doing so, I have more time to do my other work, such as making or repairing the frames my vines run on, planting, grafting, &c. &c. I have hitherto been the more inclined to follow this method of proceeding, that I had little fear of injury by the bleeding of the vines from the repruning. It is nevertheless most desirable to avoid, if possible, even the appearance of injury.

I have, sir, been thus prolix in giving my reasons for my practice, first to show, that if I have induced others into error, it was done very innocently; and also, to throw as much light as my poor experience is capable of, on a subject that is becoming more and more important. Your readers, as well as yourself, will, therefore, I hope, excuse me.

As I am writing to you, I may as well take notice of a mistake, a very unimportant one it is true, that is made in another article of the same paper, where I am honored with the title of Dr. As this is a title to which I have not the smallest claim, I take this opportunity of divesting myself of the borrowed feather with which I was erroneously adorned.

I am very respectfully, Sir,
Your obedient servant, N. Herbemont

LADIES' DEPARTMENT.

CONSTANCY.

The reader will find a charming piece of delicate sentiment in the subjoined little fable, that makes a kind of episode, in one of the tales of Mrs. Hall. It is all the better for the simplicity and peculiarities of the language in which it is expressed.

"In ancient times, when flowers, and trees, and fairies were on speaking terms, and all friendly together; one fine summer's day, the sun shune out on a beautiful garden, where there were all sorts of flowers that ye could mention, and a lovely giddy fairy, went sporting from one to the other (although no one could see her, because of the sun-light) as gay as the morning lark: then says the fairy to the rose—'rose, if the sun was clouded and a storm came on, would ye shelter and love me still?' 'Do you doubt me?' says the rose, and reddened up with anger. 'Lily,' says the fairy to another love, 'if the sun was clouded and a storm came on, would ye shelter and love me still?' 'Oh! do you think I could change?' says the lily, and she grew still paler with sorrow. 'Tulip,' says the fairy, 'if the sun was clouded and a storm came on, would ye shelter and love me still?' 'Upon my word,' says the tulip, making a very gentleman-like bow, 'ye'r the very first lady that ever doubted my constancy;' so the fairy sported on, joyful to think of her kind and blooming friends. She revelled away for a time, and then she thought on the pale blue violet that was almost kivered with its broad green leaves, and although it was an old comrade, she might have forgotten it, had it not been for the sweet scent that came up from the modest flower. 'Oh, violet,' said the fairy, 'if the sun was clouded and a storm came on, would ye shelter and love me still?' And the violet made answer, 'ye have known me long, sweet fairy, and in the first spring time when there were few other flowers, ye used to shield from the cold blast under my leaves; now ye've almost forgotten me—but let it pass—try my truth, if ever you should meet misfortune—but I say nothing.' Well, the fairy skitted at that, and clapped her silvery wings, and whisked, singing off, on a sun-bame; but she was hardly gone when a black cloud grew up out of the north, all in a minit, and the light was shrouded, and the rain fell in slashings like hail, and away flies the fairy to her friend the rose. 'Now rose,' says she, 'the rain is come, so shelter and love me still.' 'I can hardly shelter my own buds,' says the rose, 'but the lilly has a deep cup.' Well, the poor little fairy's wings were almost wet, but she got to the lily. 'Lily,' says she, 'the storm is come, so shelter and love me still.' 'I am sorry,' says the lily, 'but if I were to open my cup, the rain would bate in like fun, and my seed would be spoil't—the tulip has long laves.' Well, the fairy was down-hearted enough, but she went to the tulip, who she always thought a sweet-spoken gentleman. He certainly did not look as bright as he had done in the sun, but she waved her little wand, and, 'tulip,' says she, 'the rain and storm are come, and I am very weary, but you will shelter and love me still.' 'Begone,' says the tulip, 'be off,' says he; 'a pretty pickle I should be in, if I let every wandering scamper come about me.' Well, by this time she was very tired, and her wings hung dripping at her back, wet indeed—but there was no help for it, and leaning on her pretty silver wand, she limped off to the violet; and the darlint little flower, with its blue eye that's as clear as a kitten's, saw her coming, and never a word she spoke, but opened her broad green leaves, and took the wild wandering cratur to her bosom, and dried her wings and breathed the sweetest perfumes over her, and sheltered her until the storm was clane gone. Then the humble violet spoke and said, 'fairy queen, it is bad to flirt with many, for the love of one true heart is enough for earthly woman of fairy spirit; the ould love is better than the gay compliments of a world of flowers, for it will last when the others pass.' And the fairy knew that it was true for the blue violet; and she contented herself ever after, and built her downy bower under the wide-spreading violet leaves that sheltered her from the rude winter's wind and the hot summer's sun, and to this very day the fairies love the violet beds."

STANZAS.

Weep not o'er the tomb
Of infancy—
Flowers of sweetest bloom
Must pass away!
Too warm a sunbeam, or too chill a breath,
Oft seals their vernal loveliness in death!

Weep not o'er the sod
Where youth reposes,—
Where ruin's foot hath trod,—
Among life's roses!
The loveliest things of earth must fade away,
Their brightness vanish, and their bloom decay.

Weep not o'er the mound
Where glory fell—
Where Fame is hovering round
His deeds to tell;—
The Hero's hour of pride, like the vain breath
That wakes the clarion—swells the dirge of death!

Weep not o'er the urn
Where genius sleeps—
Where fragrant censers burn,
And science keeps
Her mournful vigils, he who rests below
No more the withering blasts of fate shall know.

Weep not o'er the grave
That shrouds the just—
Who to the power that gave,
With pious trust
Their souls resigned—Theirs is a peaceful home,
Where neither pain nor care, nor sorrow come.

MISCELLANEOUS.

I doubt that Indian corn will ever come into general use in England; and, from what I have seen of it, I confess I do not wish that it should. The people in Lombardy use it much, but it rather bloats than gives nutriment; and I also believe it generates jaundice. In the neighbourhood of Milan the fowls are fed on it. It induces plumpness, no doubt; but then the fowl becomes of a blackish yellow colour, and loses in flavour what it gains in bulk. In fact, it becomes quite dry and stringy, and tastes as differently from a fowl fed in the English fashion as a rough barnacle does from a plump ortolan. [*London pa.*

(From the American Turf Register and Sporting Magazine, Vol. 1, No. 6.)

NATURAL HISTORY.

Having obtained a very excellent wood cut of the American black bear, we select, for our present number, the natural history of that animal. Its classical arrangement, according to zoologists, is as follows:

Class Mammalia, &c.

Order. Carnivora, distributed by Desmarest into sub-orders and families,

Sub-order 2. Plantigrada; none of the thumbs separated; the entire sole of the foot resting on the ground; more than two teats placed under the belly; no membrane adapted to flight; orbitary and temporal fossæ united; cæcum wanting.

Family 4. The *Ursini*, have the cutting teeth in each jaw, the two lateral of the lower jaw longer than the rest; two strong tusks; grinders with somewhat flattened crown, and the last of them with blunted protuberances, separated by deep channels; on each foot five toes, armed with crooked and sharp claws; body thick, and covered with hair; limbs short; eyes of middling dimensions; ears external; clavicles in most instances wanting.

Genus, Ursus. The upper jaw not greatly exceeding the lower; a small obtuse tooth behind each tusk; and then a vacant space to the grinders; the second cutting tooth in the lower jaw, not projecting into the mouth; body not lengthened in proportion to its size; leg pretty long; tail very short; no bone in the penis.

The species we shall more particularly describe, will be the

AMERICAN OR BLACK BEAR. (*U. Americanus.*)

This bear is found throughout North America, from the Arctic ocean to its most southern boundary. It was observed by Lewis and Clark, on the wooded portions of the Rocky mountain, who likewise found them on the great plains of Colombia, and in the tract of country which lies between these plains and the Pacific ocean. They are occasionally found throughout the territories of the United States, in the wooded mountains, and unsettled districts. When the winters are severe at the north, they travel to the southern regions, in considerable bodies, as stated by Dr. Libley, in his report to the Secretary of War. They are still numerous in the wooded and thinly settled parts of Pennsylvania, as well as in most of the other states of the Union, and where their favourite food is ample, they grow to a great size.

The females bring forth their young in the winter time, and exhibit for them a degree of attachment which nothing can surpass. They usually have two cubs, which are suckled until they are well grown. The fondness existing between the mother and cubs seems to be mutual, and no danger can separate her from them, nor any thing short of death itself, can induce her to forsake them.

Dr. Godman relates the following anecdote. "A friend of mine, while traversing a wood near Fort Snelling, on the Missouri, saw a she bear, accompanied by two cubs, (about the size of puppies at a month old,) a short distance before him. The cubs immediately ascended a tree, and the dam, raising herself on her hind-legs, sat erect at its foot, in order to protect them; the rifle, discharged with a fatal aim, laid the parent lifeless on the earth. The hunter then approached, and stirred the body with the but of his gun, on which the little cubs hastily descended the tree, and attacked him with great earnestness, attempting to bite his legs and feet, which their youth and want of strength prevented them from injuring. When he retired to a short distance, they returned to the dead body of their dam, and by various caresses and playful movements, endeavoured to rouse her from that sleep which 'knows no waking.' "

The sight and hearing appear to be the most acute of the senses of the bear. Although he kills many small animals, yet he does not follow them by the smell. When he walks, his gait is heavy and apparently awkward, and when running, is not much less so; but his strength of body enables him to move with considerable celerity, and for a long time.

The black bear, under ordinary circumstances, is not remarkably ferocious, nor is he in the habit of attacking man without provocation. But when wounded, he turns on the aggressor with great fury, and defends himself desperately. This disposition is more fully manifested during the coupling season, because the males are then highly excited. and are not so inert and clumsy, as in the autumn, when they are exceedly fat. If taken young. he is readily domesticated, and taught numerous tricks. In captivity he is remarkable for the persevering manner in which he keeps moving backward and forward at the extremity of his chain, in this way expressing either his impatience at confinement, or his solicitude to take exercise. This feeling of the necessity for exercise is manifested in an especial manner when the animal is confined in a very small cage, where he has not room even to turn entirely round. Under such circumstances, he as perseveringly moves himself in every direction that his narrow limits will allow, stepping his fore-feet first to one side and then to the other, and finally, by raising and depressing his body quickly, as if jumping from the ground, gives his whole frame a degree of exercise which must tend to the preservation of his health and strength.

The food of this animal is principally grapes, plums, whortle-berries, persimmons, bramble and other berries; they are also particularly fond of the acorns of the live oak, on which, in Florida, they grow excessively fat. In attempting to procure these acorns they subject themselves to great perils; for, after climbing these enormous oak trees, they push themselves along the limbs towards the extreme branches, and with their fore paws bend the twigs within reach, thus exposing themselves to severe and fatal accidents in case of a fall. They are also very fond of the different kinds of nuts and esculent roots, and often ramble to great distances from their dens in search of whortleberries, mulberries, and indeed all sweet flavoured and spicy fruits; birds, small quadrupeds, insects, eggs, are also devoured by them whenever they can be obtained. These bears are occasionally very injurious to the frontier settlers, by their excursions in search of potatoes and young corn, both of which are favourite articles of food with them. Their claws enable them to do great mischief in potato grounds, as they can dig up a large number in a very short time; and, when the bears are numerous their ravages are very considerable.

In Hearnes' Journal, it is stated, that in the vicinity of Hudson's bay, the black bear has been observed to feed entirely on water-insects during the month of June, when the berries are not ripe. These insects, of different species, are found in astonishing quantities in some of the lakes, where, being driven by gales of wind in the bays, and pressed together in vast multitudes, they die and cause an intolerable stench by their putrefaction, as they lie in some places *two or three feet deep*. The bear swims with his mouth open, and thus gathers the insects on the surface of the water; when the stomach of the animal is opened, at this season, it is found to be filled with them, and emits a very disagreeable stench. They are even believed to feed on those which die and are washed on shore. By this diet, the flesh of the animal is, of course, spoiled; and that it is owing to this food, appears from the fact that the meat of those individuals that are killed at a distance from the water, at the same time of the year, is agreeably flavoured.

At the south, during the season when the loggerheaded turtles land in vast multitudes from the lagoons, for the purpose of laying, these black bears come in droves to feast on their eggs, which they dig out of the sand very expeditiously; and they are so attentive to their business, that the turtle has seldom left the place for a quarter of an hour, before the bear arrives to feast on her eggs.

The usual residence of the black bear is in the most remote and secluded parts of the forest, where his den is either in the hollow of some decayed tree, or in a cavern formed among rocks. To this place he retires when his hunger is appeased, and in the winter he lies coiled up there during the long period of his torpidity. The female of the black bear, during the period of gestation, which commences in the month of October, and continues for about one hundred and twelve days, leads a retired and concealed life; for, there is not a single instance on record of a pregnant bear being killed either by white man or Indians, though the dam and very young cubs are frequently destroyed. During an extremely hard winter the inhabitants of the borders of James river, Virginia, killed several hundred bears, among which two only were females, and those not with young.

The Indians consider the black bear as one of the noblest objects of the chase, and they always manifest the highest degree of exultation when they are successful in killing one. Every part of the animal is valuable to them, even to its intestines and claws; the latter are bored at the base and strung on deer sinews to be worn as ornaments. The flesh is considered a most delicious food, and the fore paws an exquisite dainty.

Among other modes of killing the black bear, the Indians employ a trap composed of logs, which, when the animal attempts to remove the bait, either falls on his body and kills him outright, or secures him until he is put to death by the owner of the snare. Mr. Schoolcraft relates an instance of having seen one thus caught, in the following manner: "The animal sat up on his fore paws facing us, the hinder paws being pressed to the ground by a heavy weight of logs, which had been arranged in such a manner as to allow the bear to creep under, and by seizing the bait he had sprung the trap, and could not extricate himself, although with his fore paws he had demolished a part of the works. After viewing him for some time, a ball was fired through his head, but it did not kill him. The bear kept his position, and seemed to growl in defiance. A second ball was aimed at the heart, and took effect, but he did not resign the contest immediately, and was at last despatched with an axe. As soon as the bear fell, one of the Indians walked up, and addressing him by the name of *muckwa,* shook him by the paw, with a smiling countenance, as if he had met with an old acquaintance, saying, in the Indian language, that he was very sorry they had been obliged to kill him, and hoped the offence would be forgiven, especially as the *che-mock-o-men* (white men) had fired one of the balls."

The black bear, like all the species of this genus, is very tenacious of life, and seldom falls unless shot through the brain or heart. An experienced hunter never advances on a bear that has fallen, without first stopping to load his rifle, as the beast frequently recovers to a considerable degree, and would then be a most dangerous adversary. The skull of the bear appears actually to be almost impenetrable, and a rifle ball, fired at a distance of ninety-six yards, has been flattened against it, without appearing to do any material injury to the bone. The best place to direct blows against the bear is upon his snout; when struck elsewhere, his dense woolly coat, thick hide, and robust muscles, render manual violence almost entirely unavailing.

When the bear is merely wounded, it is very dangerous to attempt to kill him with such a weapon as a tomahawk or knife, or indeed any thing which may bring one within his reach. In this way hunters and others have paid very dearly for their rashness, and barely escaped with their lives. In common with the other species of the genus, he endeavours to suffocate his adversary by violently hugging and compressing his chest. A man might end such a struggle in a few moments, if one hand be sufficiently at liberty to grasp the throat of the animal with the thumb and fingers externally, just at the root of the tongue, as a slight degree of compression there will generally suffice to produce a spasm of the glottis, that will soon suffocate it beyond the power of offering resistance or doing injury.

The black bear differs from other species of the genus by having the nose and forehead nearly on the same line, though the forehead is slightly prominent. This projection of the front is less at the upper part than in the brown bear of Europe, from which latter the black bear is still more certainly distinguished by having one more molar tooth. The palm of the hands and soles of the feet are very short, and the whole body is covered with long, shining, straight black hair, which is by no means harsh to the touch. The sides of the face are marked with fawn colour, and a small spot of the same exists in some individuals in front of the eye; others have the muzzle of a clear light yellow, with a white line commencing on the root of the nose and reaching to each side of the angle of the mouth. This continues over the cheek to a large white space, mixed with a slight fawn colour, covering the whole of the throat, whence a narrow line descends upon the breast. The yellow bear of Carolina is a variety of the black or American bear. Dr. Godman, in his American Natural History, has described three species of the bear as inhabiting North America, they are as follows, to which we add those described by European authors.

1. *American, or black bear.* Ursus, Americanus, Pallas. Godman's Amer. Nat. Hist. vol. 1, page 114.
2. *Grizzly bear*, U. Horribilis, Ord. Godman's Amer. Nat. Hist. vol. 1, page 131.
3. *Polar bear,* U. Maritimus, Linn. Godman's Amer. Nat. Hist. vol. 1, page 143.
4. *Brown bear,* U. Arctos, Linn.
5. *Pyrennean bear,* U. Pyrænaicus, F. Cuv.
6. *Siberian bear,* U. Collaris, F. Cuv.
7. *Thibetan bear,* Thibetanus, F. Cuv.
8. *Chilian bear,* U. Ornatus, F. Cuv.
9. *Thick lipped bear,* U. Labiatus, Blainville.
10. *Malayan bear;* U. Malayanus, Raffe.
11. *Bornean bear,* U. Euryspilus, Horsf.

(Items from late English papers.)

It is well known that animals in a state of nature, when by some secret impulse they feel their end approaching, always retire to the most hidden recess, where, as if pursued by a dreaded demon, they await the fatal moment solitary and unseen: hence it is rare to find a wild animal which has died in the open fields. A remarkable circumstance illustrative of this principle of instinctive foreknowledge has long been familiar in Callendar policy, in the eastern half of which a number of sheep are yearly put to graze. It necessarily happens that during the season a few die a fair strae death. On these occasions the doomed animal invariably forsakes its companions, and wanders from the flock toward the side of a steep hill facing the north, where, under shelter of a small plantation, it patiently lies down without tasting the pasture on which its carcase is soon to be stretched, food for the fox and the crow.—*Scotsman.*

It has been for some time remarked, that whilst proper encouragement was given in France to painters, the art of engraving was suffered to remain stationary, or rather to lose ground. The demand for splendidly illustrated English Annuals, however, has piqued the *amour propre* of the French, and induced them to make an attempt to place the art upon a more respectable footing. For this purpose a society has just been formed by subscription, with a capital of 200,000 francs, to order engravings from promising artists, which are to be disposed of by the society, and to distribute rewards and medals. The King, and other members of the Royal Family, patronise this institution.

Mr. Henry Handley, of Culverthorpe, Sleaford, has offered a premium of 100*l.* for the invention of a steam plough. In his letter he says he expected ere this to have seen the wonder-working powers of steam applied to general agricultural purposes, and that locomotive engines would have smoked in our fields, even before they had established themselves upon our roads. An enormous expense is attendant on the cultivation of strong natural wheat lands, four horses and two men being frequently employed in tearing up the tenacious fallow, and it is often insufficiently done, though the cost cannot be less than 12s. to 14s. per acre. Were steam applied in place of all-consuming draught horse, Mr. Handley, calculates, that ere long clay lands might be ploughed at from 2s 6d. to 5s. per acre, and other lands in proportion. Should this man of genius succeed in his invention, one of the ideas of Mr. Goodwin, that were especially exposed to ridicule, will be realised.—*Scotsman.*

THE FARMER.

BALTIMORE, FRIDAY, APRIL 2, 1830.

☞ The practice among farmers of confining their attention to a few staple articles, such as wheat, corn, cotton or tobacco, is injudicious and may be considered one of the causes of the present depression of agricultural interests. Where dependence is placed upon a single, or even two or three kinds of crops, there is much more probability of loss by the fluctuation of prices, than there would be if a greater variety of crops were cultivated; for it seldom occurs that the prices of all the products of agriculture are equally depressed or elevated by the same cause at the same time. With a view to the lessening of this evil, we this week copy an article from Loudon's Encyclopædia of Agriculture, on the *cultivation of peas,* and shall follow it up next week with another on the subject of *beans;* which, though not entirely neglected by our farmers, are not sufficiently attended to, either by cultivators or consumers.

It is without doubt the farmer's best policy, to cultivate every article to which his soil and the climate are adapted. It gives him an advantage in the market: if one or two articles are depressed, his whole dependence is not involved in it. It gives him an advantage in cultivation; he is not obliged to bend all his energies to the cultivation of an immense field at one season, and have nothing to do at another: his labours are equalized and distributed among the seasons, throughout the year, and thus he saves both money and time. To no profession is the admonition, "*gather up the fragments,*" so applicable as to the farmer; particularly the fragments of time—now, with too many, ungathered up and unappropriated to any use—like the fragments of their stable and barn-yards, which with such farmers are scattered, and their precious salts evaporated "into thin air," when they might have formed, if "gathered up," a bank of compost containing inexhaustable riches.

AMERICAN SILK.—The silk alluded to in the following certificates, was sent to Baltimore as a specimen to try the market. There was enough of it for the purpose, as well as to establish the fact of the practicability of the culture of silk in the United States, beyond doubt. It establishes another fact, that in the art of reeling from the cocoon, there is no insuperable difficulty; for the Miss Waties say in their letter, that their *servants* reel the silk "*with great ease.*" There were twenty-one ounces of silk; it was of the kind used by coach-lace weavers, which commands ten dollars a pound in the Philadelphia market.

The following certificates on Miss Waties' Floss Silk, will show its excellence:—

Philadelphia, March 27, 1830.—I have examined a skein of Floss Silk, said to have been made by the Miss Waties of S. Carolina, which I pronounce to be equal in quality to any imported Floss Silk. I have seen.
HENRY KORN,
Coach Lace and Fringe Manufacturer—Philad.

I agree with Mr. Korn in the opinion of the excellent quality of the Silk made by the Miss Waties.
WM. H. HORSTMANN,
Coach Lace and Fringe Manufacturer.

Philadelphia, March 29th, 1830.—We have this day examined with great pleasure, the skein of Floss Silk made by the Miss Waties, and pronounce it excellent. Congress could not more effectually encourage the culture of Silk in South Carolina, than by enabling the above named ladies, to become the teachers of a certain number of persons to Reel cocoons and make Floss Silk.
C. F. HOECKLEY,
C. F. FISHER,
Manufacturers of Coach Lace and Fringe—Philad.

LATEST FOREIGN NEWS.

By the James Cropper, at Hampton Roads, Liverpool, papers to the 20th February, have been received.

In relation to the distress of the country, the Liverpool Chronicle says:—"The country contemplate, with intense interest, all proceedings in Parliament; for they are sanguine enough to believe the legislature cannot remain insensible to their wants, and that the distress has become so severe and extensive, as to force on the Parliament the propriety of attending to their complaints. We fear the country is doomed to be disappointed; that no reduction in the taxes sufficiently extensive will be submitted to; but that, as the last expedient, and the only one, the paper will be re-issued."

The English Opera house in the Strand, (London,) was destroyed by fire, in the morning of the 16th February.

The Tobacco Trade.—A petition to the House of Commons has been signed by all the principal houses engaged in this important trade; and is to be presented to-night. The petitioners complain, that in consequence of the lapse of duty on tobacco, by which one shilling per lb. ceased to become payable, the trade sustained a loss of 25 per cent. on the stock on hand. The petition sets forth, that on the quantity of tobacco in stock and in course of manufacture, not less than £125,365 2s. had been lost to the subscribers to the petition. The petitioners pray for an investigation into their case, and especially as they are the largest contributors to the duty in the shape of revenue, and that the fact that their property in machinery, labour, and duty, the latter of which is 1,200 per cent. on the raw material, entitles them to expect justice.

In the tobacco market there is not much doing.

Liverpool Markets, *Feb.* 20.

Cotton.—The import this week is 21,377 bags, and the sales reach 19,950 bags, at an advance of 1-8 per lb. on Boweds, but at rather lower prices for other descriptions, particularly Brazils, viz. 110 Sea Islands at 11¾ to 15d; 40 stained do at 6 1-8 to 9d; 14,680 Boweds at 5¾d to 6 7-8; 900 N. Orleans at 6½d to 7 7-8d; 500 Alabamas, &c. at 5¾d to 6 3-8d.

In Naval Stores 380 brls. Turpentine have changed hands at 9 a 6d to 11s 6d, and 56 brls. tar at 19s 6d.

Liverpool Corn Exchange.—We have to report only a moderate supply of grain for last Tuesday's market. The wheat trade was without animation, and prices generally declined 1d per 70 lbs.

Second Edition, Saturday, 1 *o'clock.*

Wakefield, *19th Feb.* 1830.

The navigation being clear the arrivals of wheat and barley are large, of other articles there is also a good supply. Of the finest samples of wheat, the prices are fully supported, and a fair extent of business done, but all the middling qualities meet dull sale.

Prices Current at Liverpool, Feb. 20.

Cotton, per lb. Sea Island, fine, good and middling, 11¾d a 1s 3d; stained 6d a 10d; Upland, bowed, 5¾ a 6¾; N. Orleans 6 a 8; Tennessee and Alabama, 5¾ a 6¾; Bahia 6½ a 7; Maranham 6¾ a 7¼; Pernambuco 7¼ a 8; Demerara and Berbice 6½ a 8; Barbadoes 6½; common W. India 5 a 7; Bengal 4 a 5; Surat 4 a 5¾; Egyptian 6¾ a 8½; Flaxseed, per hhd. Am. sowing, 12 a 12 2s; Rice Carolina, per cwt. in bond, 15 a 19s; East India 11 a 16; Tobacco, lb. in bond, low and inferior, 2¼d a 2½d; ordinary and middling 2¾ a 3½; fair to fine, 4 a 6; stemmed 3½ a 6; Kentucky and Rappahannock. leaf. 2¾ a 3½; stemmed, 3½ a 5¾; Carolina and Georgia leaf none.

Prices Current in Boston, March 26.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a —— No. 2, 6.75 a —— *Butter*, inspected, No. 1, new, lb. .10 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 4.75 a 5.00; Genesee, 5.25 a 5.62; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .62 a 63; Rye, .75 a .78; Barley .62; Oats .40 a .42. *Hogs'-Lard*, 1st sort, new, lb. .7 a .8. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.50 a ——; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a 1.00; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, 25 a .33; Red do. Northern, 8; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .40 a .55; do. do unwashed, .25 a .40; do. three-fourths, washed, .37 *a* .45, do. half blood, .35 *a* .36; do. quarter, washed, .30 *a* .32; Native, washed .30 a .33; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, March 30.

Bees-wax, yellow .20 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .8½ a .11; Alabama, .9 a 12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .14 a .18. *Flax*, American, 8 a 9. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.75 a 4.87 Canal 4.75 a 5.25; Balt. Howard st. 4.87 a 5.00; Richmond city mills, 5.00; country, 4.75 a — Alexand'a, 4.75 a 4.87; Fredericksburg 4.56 a 4 68; Petersburg, 4.62 a 4.75; Rye Flour, 2.75 a 2.87½; Indian Meal, per bbl. 2.75 a 2.87; per hd 12.25 a 12.50. *Grain*, Wheat, North, 90 a 99; Virginia, 78 a 82; Rye, North, 63 a —; Corn, Yel. Nor. .50 a 51; Barley, — a .70; Oats, South and North, .30 a .33; Peas, white, dry, 7 bu. 5; Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.25; cargo 4.25 a 4.50; Butter, N. York, 12 a 16; shipping, .6 a 10; Lard, .5 a .6; Pork, mess 11.50 a 12.25; prime 8.75 a 9.25

Prices Current in Philadelphia, March 30.

Bees-wax, yellow .20 a .22; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 12.00 a —- prime 8 a 9, cargo 7; *Butter*, No 1, 7 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½, Upland 10. a .11, Tennessee 9½ a .10½, Alabama 9½ a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .7 a .7½. *Flour*, sup. 4.50, fine, 4.00 a 4.25; Rye 3.00 a 3.25; Corn meal, hds. 11.00 a —-, bls. 2.12½ a 2.25; *Flaxseed*, cask ——; bu. 1.28 a ——; *Grain*,—Wheat 87 a 90—Rye .48 a .52, Corn l. c. white, .33 a .34, l. c. yellow, .35 a .36, u. c. round, .40 a .42; Oats .25 a .28, Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .7; *Oil*, linseed, 70 a 72; *Pork*, mess, 12.00 a ——, prime 10.50 a 11; cargo 9.50. *Rice*, 2 25 a 3.30; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7; *Wool*, common washed lb. .22 a .26, half blood .28 a 30; three quarters blood .32 a .—, full blood 33 a .38; unwashed, generally 6 cents less, according to quality.

GARDEN SEEDS.

Received by the Philip Tabb and other late arrivals, a fresh assortment of choice Garden Seeds. To those who in former years have bought seeds of me, I only need say, that they are raised by the same gentleman that has for these last fourteen years supplied me with such very excellent seeds. To those unacquainted with them I would observe, that they are raised by one of the first botanic gardeners in the neighbourhood of London, and as I receive them direct from him, there never has been or will be any deception or mistake as to quality or kinds of seeds. It is a fact well known to every experienced gardener, that European Garden Seeds, especially Cabbage, Cauliflower, Broccoli, Early Raddish Seeds, &c. &c. produce incomparably better crops than can be obtained from seeds raised in this country. The above seeds are for sale, wholesale and retail, at No. 78 Ensor (late Bridge) street, second door above the Independent Fire Engine House. SAMUEL AULT.

P. S. Orders, with remittances, from all parts of the United States, will be promptly attended to, if directed as above.

GARDEN & FIELD SEEDS.

J. S. EASTMAN, at No. 36 West Pratt-street, would inform his customers and the Public generally, that he has now on hand a general assortment of Messrs. D. & C. Landreth's GARDEN SEEDS ,of Philadelphia—who have given the following information respecting their Seeds, viz:

For the information of those who may be interested and unacquainted with the fact, they beg to say, that all Seeds sold by them (with a very unimportant exception) are grown upon their own grounds: a portion of which is separated two miles; the more effectually to obviate the well known propensity in some Vegetables to commingle; and that from the time the Seeds are sown, until the crop comes to maturity, they are under their personal inspection—thus they are enabled most unequivocally to warrant them, as regards freshness and purity. In most articles of merchandise, the purchaser can form some estimate of the quality; but in Garden Seeds, it is not so—their age and variety are problems to all but the *positive grower*, to be solved only by a trial of them, at an expense of money, land, labour and time; hence a manifold vexation if unsuccessful. The *mere vender*, who depends upon foreign growth or transient purchases for his supply, though he may have exercised his judgment upon Seeds for a lifetime, yet cannot possibly avoid deception only by actual test, which requires a length of time frequently longer than the interim between their reception and the season of demand; hence a decided advantage in dealing with *first hands*.

Constantly on hand, Clover, Orchard Grass and Herds GRASS SEEDS, and a general assortment of the most improved AGRICULTURAL IMPLEMENTS, &c. &c.

ALMANAC.

1830. April.		Sun. Rises.		Sun. Sets.		Length of days.		Moon. sets.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,....	3	5	43	6	17	12	34	3	52
Sunday,......	4	5	42	6	18	12	36	4	25
Monday,.....	5	5	40	6	20	12	40	4	58
Tuesday,....	6	5	39	6	21	12	42	5	30
Wednesday,	7	5	38	6	22	12	44	rises.	
Thursday,...	8	5	36	6	24	12	48	6	35
Friday,.......	9	5	35	6	25	12	50	7	14

Moon—Full Moon, 8th, 2h. 15m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—The prices of Howard street flour remain about the same as last week. Sales of city mills flour have been made at quotations. Sales of Susquehanna red wheat have also been made at quotations. In beef there is no change.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 146 hhds Maryland.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.31 *a* 4.37½; city mills, 4. *a* 4.12½; Susquehanna, 4.12½ *a* 4.25. Corn Meal, bbl. 2.25—Grain, best red wheat, 85 *a* .87; best white do. .87½ *a* .90; ordinary to good, 70 *a* 80--Corn, white, .34 *a* 35—yellow .35 *a* .37—Rye, .48 *a* .50—Oats, .26 *a* .27—Beans, 90 *a* 1.00—Peas, .65—Clover seed, 4.87½ *a* 5.—Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, 55 *a* 60—Flaxseed, 1.06 *a* 1.12½-Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .20 *a* 20½; in bbls. 22½ *a* 23—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140-water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.25 *a* —— No. 2, 6.00—No. 3, 3.50 *a* 4.00-——Bacon, hams, Balt. cured, .9 *a* ——Feathers, .30 *a* ——Plaster Paris, cargo price per ton, 5.00 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.75 *a* 5.50—Pine Wood, by the vessel load, 2.00 *a* ——Oak Wood, 2.50 *a* 2.75—Hickory, 3.75.

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On the Culture of Leguminous Field-plants, the different and most choice varieties; season of sowing; manner of Culture; gathering in; produce; profit, &c. from Loudon's Encyclopædia of Agriculture—Instructions for growing Turnips and Maize on grass grounds, without the use of dung; also, for cultivating fallow crops, sown broad cast, to be followed by small grain; the economy of buckwheat considered; from Lorain's Husbandry—On Bots in horses, with a tried cure for the same—On Pruning Grape Vines, and the proper season for doing it—Letter from N. Herbemont on Pruning Grape Vines—Constancy—Poetry, Stanzas on Infancy—The Natural history of the American or Black Bear, (U. Americanus)—Miscellaneous Items from late English papers—Editorial; American Silk—Latest Foreign News and Prices—Prices in the Boston, New York, Philadelphia and Baltimore markets—Advertisements—Almanack.

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AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

OF THE CULTURE OF LEGUMINOUS FIELD-PLANTS.

The Bean.—Vicia Faba, L. *Diad. Decan.* L. and *Leguminoseæ,* J. *Fève de marais,* Fr.; *Bohn,* Ger.; and *Fava,* Ital.

The bean is a valuable field plant, as affording food for live stock, and in part for man. It is said to be a native of Egypt; but, like other long domesticated plants, its origin is very uncertain. It has been cultivated in Europe and Asia time out of mind: beans have been long known in Britain, but it is only of late years that they were extensively cultivated upon general soils, being formerly considered as adapted only to rich and moist clays. At that time they were all sown according to the broad-cast system; in which way, instead of benefiting the ground, they were of incalculable detriment. Weeds got away at the outset, and, in dry seasons, often ruined the crop; whilst in every season, the grass or perennial weeds, which happened to be in the ground, increased in strength and in quantity, the openness of the bean crop at bottom allowing them to thrive without interruption.

The drilling of beans with a small mixture of pease is now become a general practice in every well cultivated district, more particularly in those where soil and climate permit the practice to be successfully executed. In this way not only heavy crops are raised, but, what is of great importance, the ground is kept constantly in good order, provided suitable attention is bestowed upon the cleaning process. This is generally carried on by horse-hoeing the crop at different times, so long as the hoe can be used without doing damage; and in this way, an able auxiliary is brought forward to the assistance of summer fallow, whereby less stress need be laid upon that radical process than otherwise would be indispensably necessary.

The varieties of the bean may be included under two general heads, the white or garden beans, and the grey or field beans. Of the white beans sown in the fields, the Mazagan and long-pod are almost the only sorts. Of the grey beans, that known as the horse-bean, the small or ticks, and the prolific or Heligoland, are the chief sorts. New varieties are procured in the same manner as in other plants.

In the *choice of sorts,* tick beans are supposed by some farmers to be more productive than horse-beans; but the latter grow higher in the stem, and produce a more stagnated state of the air, or smother the land more, consequently are the most suitable for the stronger sorts of soil; and Young remarks, that "the common little horse-bean has the advantage of all others in being more generally marketable; for, in certain situations, it is not always easy to dispose of ticks, Windsors, long-pods, and various other large sorts. They also grow higher, shade the ground in summer more from the sun, and yield a larger quantity of straw, which makes excellent manure. But some of the others sorts are generally supposed to yield larger products. In purchasing beans for seed, care should be taken to choose such as are hard and bright, without being shrivelled in their appearance."

The best soils for beans are clays and strong loams: on such soils they generally succeed wheat or oats, but sometimes also clover leys. Turnip soils or sands are by no means proper for them.

In the *preparation of the soil,* much depends on the nature of the land and the state of the weather; for as beans must be sown early in the spring, it is sometimes impossible to give it all the labor which a careful farmer would wish to bestow. It must also be regulated, in some measure, by the manner of sowing. In all cases it ought to be ploughed with a deep furrow after harvest, or early in winter: and as two ploughings in spring are highly advantageous, the winter furrow may be given in the direction of the former ridges, in which ways the land is sooner dry in spring than if it had been ploughed across. The second ploughing is to be given across the ridges, as early in spring as the ground is sufficiently dry; and the third furrow either forms the drills, or receives the seed.

Brown, one of the best bean growers in Britain, gives the following directions. The furrow ought to be given early in winter, and as deep as possible, that the earth may be sufficiently loosened, and room afforded for the roots of the plant to search for the requisite nourishment. This first furrow is usually given across the field, which is the best method when only one spring furrow is intended; but as it is now ascertained, that two spring furrows are highly advantageous, perhaps the one in winter ought to be given in length, which lays the ground in a better situation for resisting the rains, and renders it sooner dry in spring, than can be the case when ploughed across. On the supposition, that three furrows are to be given, one in winter, and two in spring, the following is the most eligible preparation. The land being ploughed in length, as early in winter as is practicable, and the cross gutter and headland furrows sufficiently digged out, take the second furrow across the first as soon as the ground is dry enough in spring to undergo the operation; water-furrow it immediately, and dig again the cross gutter and headland furrows, otherwise the benefit of the second furrow may be lost. This being done, leave the field for some days, till it is sufficiently dry, when a cast of the harrows becomes necessary, so that the surface may be levelled. Then enter with the ploughs, and form the drills.

Manure is frequently applied to the bean crop, especially if it succeeds wheat. By some, dung is spread on the stubble previous to the winter ploughing, but this cannot always be done in a satisfactory manner, at least in the northern parts of the island, unless during frost, when it may lie long exposed to the weather before it can be turned down by the plough. The most desirable mode therefore is, to lay the manure into drills immediately before the beans are sown.

According to Brown, the best way is *to apply the dung* on the stubble before the winter furrow is given, which greatly facilitates the after process. Used in this way, a fore stock must be in hand; but where the farmer is not so well provided, spring dunging becomes necessary, though evidently of less advantage. At that season, it may either be put into the drills before the seed is sown, or spread upon the surface and ploughed down, according to the nature of the drilling process, which is meant to be adopted. Land dunged to beans, if duly hoed, is always in high order for carrying a crop of wheat in succession. Perhaps better wheat, both in respect of quantity and quality, may be cultivated in this way, than in any other mode of sowing.

The climate most favorable to the bean is one neither very dry nor very moist, the first brings on the fly, and the last prevents the setting of the blossoms. In general, however, a dry summer is most favorable to the production of corn, and moist weather to the growth of the haulm.

The time of sowing beans is as early as possible after the severity of winter is over; in the south, sometimes in January, but never later than the end of March; as the ripening of the crop and its safe harvesting would otherwise be very precarious in this climate. Bannister thinks, that the proper time for planting beans in Kent is towards the latter end of January, or early in the following month; though this business may be continued to advantage till the middle or latter end of March, if the weather had prevented their being got in at an earlier season: but in general it is best to embrace the first opportunity of sowing them after Candlemas, as they often miscarry if the season be procrastinated beyond that time, especially if a dry summer should succeed.

The mode of sowing is almost always in rows. Though still sown broad-cast in several places, and sometimes dibbled, they are, for the most part, drilled by judicious cultivators, or deposited after the plough in every furrow, or only in every second or third furrow. In the latter method, the crop rises in rows, at regular intervals of nine, eighteen, or twenty-seven inches, and the hand-hoe ought invariably to be employed; but it is only where the widest interval is adopted, that the horse-hoe can be used with much effect in their subsequent culture.

There are two modes of drilling beans. In one of these, the lands, or ridges, are divided by the plough into ridgelets, or one bout stitches, at intervals of about twenty-seven inches. If dung is to be applied, the seed ought to be first deposited, as it is found inconvenient to run the drill-machine afterwards. The dung may then be drawn out from the carts in small heaps, one row of heaps serving for three or five ridgelets; and it is evenly spread, and equally divided among them, in a way that will be more minutely described when treating of the culture of turnips. The ridgelets are next split out or reversed, either by means of the common plough, or one with two mould-boards, which covers both the seed and the manure in the most perfect manner. When beans are sown by the other method, in the bottom of a common furrow, the dung must be previously spread over the surface of the winter or spring ploughing. Three ploughs then start in succession, one immediately behind another, and a drill barrow either follows the third plough, or is attached to it, by which the beans are sown in every third furrow, or at from twenty-four to twenty-seven inches asunder, according to the breadth of the furrow-slice.

Another approved way of sowing beans, when dung is applied at seed-time, is to spread the dung and to plough it down with a strong furrow; after this shallow furrows are drawn, into which the seed is deposited by the drill-machine. Whichever of these modes of sowing is followed, the whole field must be carefully laid dry by means of channels formed by the plough, and when necessary by the shovel; for neither then nor at any former period should water be allowed to stagnate on the land.

The dibbling of beans is considered by Arthur Young as an excellent method, when well performed; but the grand objection to it is the difficulty of getting it well done. When it becomes the common husbandry of a district, the workmen find that great earnings are to be made by it; and this is much too apt to make them careless, and eager to earn still more; and if a very minute attention be not paid to them, by the constant attendance of the farmer, they strike the holes so shallow, that the first peck of a rook's bill takes the seed, and acres may be destroyed, if the breed of those birds be encouraged. Boys are employed for weeks together to keep the fields, but all works that depend on boys are horribly neglected, and thus the farmer suffers materially; but if the seed is deposited two and a half, or (better) three inches deep, it is not so easily eradicated. In some districts, as Middlesex, Surrey, &c. the method is, to plant this pulse in rows stricken out by a line, by which a great saving is made in the article of seed; a circumstance which is thought to compensate for the extraordinary charge of this mode of husbandry; and thus far it may be fairly acknowledged, that the method of planting beans by the dibber is greatly to be preferred to that of sowing the seed at random; the economy of this agricultural process is thus explained: the rows are marked out one foot asunder, and the seed planted in holes made two inches apart: the lines are stretched across the lands, which are formed about six feet over, so that when one row is planted, the sticks to which the line is fastened are moved by a regular measurement to the distance required, and the same method pursued till the field is completed. The usual price for this work is ninepence per peck, and the allowance two bushels per acre. Great confidence must necessarily be reposed in the people who transact the business of planting beans by the dibber, who, if inclined to fraud, have it in their power to deceive their employer by throwing great part of the seed into the hedge, from which their daily profits are considerably enhanced, their own labor spared, and every discovery effectually precluded, till the appearance of the crop, when the frequent chasms in the rows will give sufficient indications of the fraud; and by this time, perhaps, the villanous authors of the mischief may have escaped all possibility of detection, by having conveyed themselves from the scene of their iniquity.

The quantity of seed allowed is very different in the southern and northern parts of Britain; in the former, even when the rows are narrow, only two bushels or two bushels and a half; but in Scotland, seldom less than four bushels to the English statute acre, even when sown in ridgelets twenty-seven inches distant; and a bushel more when sown *broad-cast.* We seldom have seen thin beans turn out well, unless the soil is particularly rich; nay, unless the rows are close, weeds will get away after the cleaning process is finished, thereby disappointing the object of drilling, and rendering the system of little avail towards keeping the ground in good condition. Both in the broad-cast and drill husbandry, it is common to mix a small quantity of pease along with beans. This mixture improves both the quantity and quality of the straw for fodder, and the pease-straw is useful for binding up the sheaves in harvest.

The after culture of the bean crop commences with harrowing just before the young plants reach the surface. When sown in rows, in either of the modes already mentioned, the harrows are employed about ten or twelve days after; and, being driven across the ridgelets, the land is laid completely level for the subsequent operations, and the annual weeds destroyed.

After the beans have made some growth, sooner or later, according as the soil may happen to be encumbered with or free from weeds, the horse-hoe is employed in the interval between the rows; and followed by the hand-hoe for the purpose of cutting down such weeds as the horse-hoe cannot reach; all the weeds, that grow among the beans beyond the reach of either hoe, should be pulled up with the hand. The same operations are repeated as often as the condition of the land, in regard to cleanness, may require.

Before the introduction of the horse-hoe, which merely stirs the soil, and cuts up the weeds, a common small plough, drawn by one horse, was used in working between the rows, and is still necessary where root-weeds abound. This plough goes one bout, or up and down in each interval, turning the earth from the beans, and forming a ridgelet in the middle; then hand-hoes are immediately employed; and after some time, a second hand-hoeing succeeds to destroy any fresh growth of weeds. The same plough, with an additional mould-board, finally splits open the intermediate ridgelet, and lays up the earth to the roots of the beans on each side. The benefit of laying up the earth in this manner, however, is alleged to be counterbalanced by the trouble which it occasions in harvest, when it is difficult to get the reapers to cut low enough, and may be properly dispensed with, unless the soil be very wet and level.

In moist warm seasons, this grain hardly ever ripens effectually; and it is exceedingly difficult to get the straw into a proper condition for the stack. In such cases, it has been found of advantage to switch off the succulent tops with an old scythe blade set in a wooden handle, with which one man can easily top-dress two acres a day. This operation, it is said, will occasion the crop to be ready for reaping a fortnight earlier, and also perhaps a week sooner ready for the stack-yard after being reaped.

Before reaping beans the grain ought to be tolerably well ripened, otherwise the quality is impaired, whilst a long time is required to put the straw in such a condition as to be preserved in the stack. In an early harvest, or where the crop is not weighty, it is an easy matter to get beans sufficiently ripened; but, in a late harvest, and in every one where the crop takes on a second growth, it is scarcely practicable to get them thoroughly ripened for the sickle. Under these circumstances, it is unnecessary to let beans stand uncut after the end of September, or the first of October; because any benefit that can be gained afterwards, is not to be compared with the disadvantages that accompany a late wheat seed-time. Beans are usually cut with a sickle, and tied in sheaves, either with straw ropes, or with ropes made from pease sown along with them. It is proper to let the sheaves lie untied several days, so that the winning process may be hastened, and, when tied, to set them up on end, in order that full benefit from the air may be obtained, and the grain kept off the ground.

Beans are sometimes mown, and in a few instances, even pulled up by the roots. They should in every case be cut as near the ground as possible, for the sake of the straw, which is of considerable value as fodder. and because the best pods are often placed on the stems near the roots. They are then left for a few days to wither, and afterwards bound and set up in shocks to dry, but without any head sheaves.

Beans are stacked either in the round or oblong manner, and it is always proper, if the stack be large, to construct one or more tunnels to allow a free circulation of air.

The threshing of beans is nearly as easy as that of pease. Threshing them by a machine may be considered advantageous as breaking the coarser ends of the straw, and separating the earth from their root-ends, or roots, if they have been reaped by pulling.

The produce of beans, when proper management is exercised, and where diseases have not occurred, is generally from twenty-five to thirty-five bushels per acre. Donaldson says, that a crop of beans, taking the island at large, may be supposed to vary from sixteen to forty bushels, but that a good average crop cannot be reckoned to exceed twenty. In Middlesex, Middleton tells us, that bean-crops vary from ten to eighty bushels per acre. They are rendered a very precarious crop by the ravages of myriads of small black insects of the same species. The lady birds (*Coccinella*) are supposed to feed on them, as they are observed to be much among them. Foot says, the average produce is from three and a half to four quarters per acre. In Kent, A. Young thinks, they probably exceed four quarters; but in Suffolk, he should not estimate them at more than three; yet five or six are not uncommon.

The produce in haulm, in moist seasons, is very bulky.

In the application of beans, the grain in Scotland is sometimes made into meal, the finer for bread and the coarser for swine; but beans are for the most part applied to the purpose of feeding horses, hogs, and other domestic animals. In the county of Middlesex, all are given to horses, except what are preserved for seed, and such as are podded while green, and sent to the London markets. When pigs are fed with beans, it is observed that the meat becomes so hard as to make very ordinary pork, but good bacon. It is also supposed that the mealmen grind many horse-beans among wheat to be manufactured into bread.

The flour of beans is more nutritive than that of oats, as appears in the fattening of hogs; whence, according to the respective prices of these two articles, Dr. Darwin suspects that pease and beans generally supply a cheaper provender for horses than oats, as well as for other domestic animals. But as the flour of pease and beans is more oily, he believes, than that of oats, it may in general be somewhat more difficult of digestion; hence, when a horse has taken a stomach-full of pease and beans alone, he may be less active for an hour or two, as his strength will be more employed in the digestion of them than when he has taken a stomach-full of oats. A German physician gave two dogs, which had been kept a day fasting, a large quantity of flesh food; and then taking one of them into the fields, hunted him with great activity for three or four hours, and left the other by the fire. An emetic was then given to each of them, and the food of the sleeping dog was found perfectly digested, whilst that of the hunted one had undergone but little alteration. Hence it may, he says, be found advisable to mix bran of wheat with the pease and beans, a food of less nutriment but of easier digestion; or to let the horses eat before or after them the coarse tussocks of sour grass, which remain in moist pastures in the winter; or, lastly, to mix finely-cut straw with them. It is observed in the fifth volume of *The Bath Papers,* that it has been found by repeated experience, that beans are a much more hearty and profitable food for horses than oats. Being out of old oats the two last springs, the writer substituted horse-beans in their stead. In the room of a sack of oats with chaff, he ordered them a bushel of beans with chaff, to serve the same time. It very soon appeared the beans were superior to the oats, from the life, spirit, and sleekness of the horses.

Bean straw, when mixed with pease, Brown considers as affording almost as much nourishment when properly harvested, as is gained from hay of ordinary quality; when it is well got the horses are fonder of it than of pease straw. It should either be given when newly threshed, or else stacked up and compressed by treading or coverings, as the air is found materially to affect both its flavor and nutritive quality.

The produce of beans in meal is like that of pease, more in proportion to the grain than in any of the cereal grasses. A bushel of beans is supposed to yield fourteen pounds more of flour than a bushel of oats, and a bushel of pease eighteen pounds more, or, according to some, twenty pounds. A thousand parts of bean flour were found, by Sir H. Davy, to yield 570 parts of nutritive matter, of which 426 were mucilage or starch, 103 gluten, and 41 extract, or matter rendered insoluble during the process.

The disease of beans are, the rust, the honey-dew, mildew, and black fly or aphides. These diseases are brought on by very dry weather; the fly almost always succeeds the honey-dew; both are most prevalent on the summits of the plants, and some have attempted to mitigate the evil by cutting them off. In general, however, these diseases are without remedy, either preventive or positive. In extreme cases they destroy both the leaves, stalks, and fruit; and when this is foreseen, the best thing the farmer can do is to mow them or plough them down, and prepare the land for wheat or otherwise, according to the rotation.

ON MANURE, SUGAR, WINE, &c.

J. S. Skinner, Esq.

500 acres of land, at $10 will amount to		$5,000
100 of them in corn will yield 300 bbls. which at $2, will make	$600	
100 in wheat,——750 bushels, at $1,	750	
	$1,350	
It will require the labour of six slaves to cultivate this farm, worth $100 a year wages,	600	
Leaving a profit of	$750	
230 acres at $10, will amount to		$2,300
175 acres manured, at $16 an acre, will cost		2,800
		$5,100
44 acres of these in corn, at 6 bbls., 264 bbls. at $2, are	$528	
44 in wheat, 15 bush. 660 bush. $1,	660	
	$1,188	
Three slaves will cultivate this farm at $100 a year each	300	
Leaving a profit of	$888	

Now which of these two farms is the most profitable one? Mr. John Dickinson, in your previous number, seems to give the preference to the larger one. If he is correct I am in the dark. In this matter I think "there is no mistake—there can be none." "Must it not be admitted," says he, "that the productiveness of the large farm will increase more rapidly than the small one?" Why should it? I understand that they are both to be managed alike. On the contrary is there not every probability that the enriched one will forever keep ahead of the poorer one? Am I mistaken? If so, I wish Mr. Dickinson to correct me. I am in favour of the manured farm.

I planted yesterday, 500 sugar canes, principally of the ribbon sort, as an experiment in sugar making. I think they will succeed. Time and trial, however, will determine it. In our soil and climate they ripen ten or twelve joints. Syrup has been made from the cane grown here.

I have a vineyard of four acres in progress, containing fifty varieties of imported grapes, and ten or twelve of native ones. There are five varieties from the seeds of the scuppernong. One of them is superb. We have discovered, that to prune this vine injures it, and that the vine of every species of grapes produces and flourishes much the best upon scaffolds, six or eight feet high, and placed thirty or forty feet a part, allowing the vines ample space to spread, and luxuriate. A single vine, of the scuppernong sort, made this season three barrels of juice. Our woods are full of the grape vines. They ascend to the very tops of the tallest trees, and there hang to the elements their rich fruit in beautiful clusters. Generally, the birds destroy them, being beyond the reach of less airy aspirants. I have a very pleasant wine in bottles, made from the scuppernong grapes of the last season. Our native bunch grape, the Arena of Herbemont, is one of our very best wine grapes. That we can make wine and sugar in this section of North Carolina, is by no means problematical, and a few of us have turned our attention to them. Should we succeed only so far as to furnish ourselves with these items we shall have gained something in rural economy. Wine and sugar are expensive articles, and are of daily consumption.

Mrs. Wilson, the past year, raised three pecks of the cocoons of the silk worm. A portion of them were reeled, and the silk was beautifully white. We have here two species of the silk worm—natives.—One of them spins from the oak, and the other from the persimmon. Those of the latter species make the larger cocoon, and apparently a finer silk. North Carolina, can raise as much silk from the mulberry, the oak, and the persimmon, as there can be found persons to fabricate it. And it will be raised in abundance so soon as its inhabitants amount to eighty-four, the square mile—the population of China. In the interim these tenants of the trees will be permitted to enjoy their liberty, and spin for the elements to destroy. These native silk worms hatch from their cocoons in the spring, and lay their eggs, which hatch during the summer, and the worm spins and encloses itself in the cocoon, and remains therein during the winter, and until spring, when it comes forth a large butterfly, elegantly variegated.

Our peach trees are in full blossom: so are our oaks, elms, maples, and strawberries. Asparagus is fit to cut, and the pomegranate and fig have expanded their leaves. Various flowers—the jessamine, hyacinth, &c. are giving their perfumes to the atmosphere of our gardens.

I have made since the fall, and have carried into the field, and covered in the drill, 1604 cart loads of maoure from leaves, gathered in the woods, and thrown into the horse and cattle pens. This quantity has manured in the drill thirty acres, which is designed for cotton. Should Mr. Webster's notion of our form of government be adopted as the correct one, and a majority of the Senate and House of Representatives (tantamount to a majority of the peoplo of the U. S.) are to bind us in all cases—or in other words, if every act of Congress is to be received as the law of the land, it will be quite immaterial to the farmer, whether he does or does not manure his land. If the laws of N. Carolina, under which I hold my property can be annulled by Congress, (as Mr. Webster asserts,) then I would not give a fig for my title deeds. The *majority* have already shewn their regard for us of the south, in "the accursed tariff," and they have also given pretty plain indications of a disposition to rid us of our "accursed slaves," and at the same time to take our money to dig "accursed" canals, not in N. Carolina: no—but at, "the Lord knows where." From Mr. Webster's authority I dissent, and "appeal unto Cæsar"—to the separate, and independent states which form "these *United States.*" The people of the states are not with Mr. Webster; they will not part with their state laws, nor place them at the mercy of certain leading members of Congress, or of the supreme court.

Manure is a very good thing, but if "accursed" laws destroy all its benefits, of what avail is it? I would sooner "gird on the sword and march to battle," than delve upon even a rich soil to support an aristocracy, of either church or state, in pride and power. Give us fair play, it is a jewel. Let the Congress protect us in our rights, and we will take care of our interests. Let the laws furnish those who may infringe upon person or property, or who may conspire to do wrong, and let us alone in matters of industry. May all monopolies created by law be "accursed." GEORGE WILSON.

Newbern, March 25, 1830.

At the Academy of Sciences in Paris, M. Dupin, in reference to a work on the comparative agricultural resources of Great Britain and France, stated that he had made several calculations respecting the crops of corn in France during the last twenty-four years; from which he found that there had been fourteen years of abundance, and ten of scarcity; and that the medium price of grain during the whole period had been in favour of the cultivator: a result which he attributes to the prohibition of the entry of foreign corn, and the exportation of French corn, except under certain restrictions. At this sitting there was no other communication of the slightest interest.

TURNIPS.

J. S. SKINNER, ESQ.

Sir,—I have seen mention made in your journal of large turnips, but never so large as the one mentioned by the reverend writer who gives an account of one found in 1813, on the lands of Samuel Britain, Esq. of Upton, in the county of Norfolk, England, which was so large, that after the *inside* was scooped out, it was sufficiently capacious to contain a leg of mutton, and a sufficient quantity of *turnips* and *carrots* to form a handsome dish to send to table. The top which was cut off formed a neat lid or cover to the whole. The gentlemen sent it as a present to a friend. This *turnip* when taken up, weighed *five and twenty pounds!* and was of the *white* kind.

To be sure the above, is but a *turnip radish* to the following, grown Anno 1809, in a field belonging to *Mr. John Jackson* of Bolthow, Gosforth, *Cumberland,* where *two turnips* were taken up *promiscuously,* which weighed each *sixty-three pounds:* exclusive of the *top* and *root, twenty-six pounds,* and measured upwards of three feet and a half, in *circumference.*

This *root*, so important to the county of *Norfolk,* has been gradually rising to its present state, for near a *century.* A good *acre* of *turnips,* will produce between thirty and forty cart loads, as heavy as *three* horses can draw; and an *acre* will fat a *Scotch* bullock from forty to fifty *stone,* (700 lbs.) or *eight sheep,* but the benefit does not end here, for it generally leaves the land so clean, and in such fine condition, that it almost insures a large crop of *barley,* and a good crop of *clover;* and the clover is a most excellent preparative for *wheat*, so that in the subsequent advantages, the value of the *turnip* can hardly be estimated.

Persons desirous of preventing depredations upon their crops of *turnips,* may take this *Sussex* threat as a specimen.—In a field by the road-side, near the Holmwood common, between *Horsham* and *Dorking,* is set up a board with the following inscription:—

Who so ever
Is fond stilling
Turners In this Ground
Will be perse
Cuted as the Law Directs

But it is not in *Sussex* only, that curious notices are to be found, the information beneath, appeared on a board, over the door of a house in the *borough.*

"I John Wake carrys out letters, parcels in caarts, or on horses backs, and I goes with myself or else I sends my wife, so as how they be sure to be safe.—Gardenang jobes dun by day or yeer, and wall fruit brote forth, as may be seen within. Terms must be menshuned, as I never goes from my wurds, so none need apply who cannot ansur this descripshon.—Cats meet, dogs meet, fowls, and pastry, and othour eatables, and lickers of all kinds, as I have licence for these things neate as reported.

"N. B. I sells nothing on Monday mornings, as I does not return to town till the afternoon."

And upon a house, occupied by father and son, (the former a *blacksmith* and *publican,* the latter a *barber,*) near *Bridgewater,* in *Somersetshire,* is a board, expressing as follows:—"*Barnes* and Son blacksmith and barber's work done here, horseshoing and shaving, locks mended, and hare curling, bleeding, teeth drawing, and all furriery work. All sorts of spiratus lickers akording to the late comical trety. Take notis my wife keeps skool and lays folkes as you shall, teaches reeding and writing and other langwethes, and has a sist aunts if required to teach horritory, sowing the mathew maticks, and all other fashionable divershens."

Canandaigua, Ontario Co. N. Y. March 20.

I have an imported cow of the improved short horn Durham breed, which was weighed at the hay scales in this village, to-day, together with a calf a year old this present month, same stock, the joint weight of the two was, 2453 lbs.; weight of cow, 1665; calf, 788.

It might also be gratifying to state, the above cow, in the season for milk, has given 36 quarts of rich milk daily. L. JENKINS.

HORTICULTURE.

CAUSE OF DECAY IN PEACH TREES.

A writer in the Trenton Federalist planted a peach orchard in 1820, which, for five or six years, grew thriftily. The second crop of fruit seemed to have exhausted it; and on the following year, "the roots were replete with worms, and in many instances they had completely girdled the principal ones." He does not believe the decline of peach trees is caused by worms. He supposes that the roots of peach trees in a healthy, vigorous and fruitful state are unpalatable to worms. By applying half a bushel of oyster shell lime and tar, in equal proportions, immediately round the trunk, a few inches under the ground, he has restored his trees to the health and thriftiness they were in when three years old; and for the last four years he has had fine crops.

The Magnolia.—This pride of the American forests was named in honor of Pierre Magnol, Professor of Medicine, aod Prefect of the Botanic Garden at Montpelier.

[The sound practical knowledge of the writer of the following essay, from the N. E. Farmer, gives it a claim to the attention of our readers.]

Hon. H. A. S. Dearborn,
Pres. Mass. Hor. Society.

Dear Sir,—I herewith forward a few observations on orchards, &c. They are at your service to dispose of as you may deem proper.

With great respect,
Your most obedient servant,
William Kenrick.

Newton, Feb. 22d, 1830.

OBSERVATIONS ON ORCHARDS OF THE APPLE TREE.

THEIR MANAGEMENT, &c.—NOTES ON FOUNTAINS.

SIZE AND AGE FOR TRANSPLANTING.

An apple tree, when finally transplanted to the orchard, ought to be at least 6 or 7 feet in height, with branches in proportion, and full two years old from the bud, and thrifty. Apple trees under this size belong properly only to the nursery. In taking them up, particular care should be taken to extract, if possible, their roots entire.

SOIL AND SITUATION.

A rich soil, rather moist than dry, is that adapted to the apple tree; but what is usually termed a deep pan soil, is always to be preferred.

On such a soil, whether on the plains, in the valley, or on the sides and summits of the great hills, which are almost always found to consist of rich land, and even in situations the most exposed, the apple tree will flourish.

One of the most productive apple orchards in this immediate vicinity, is situated on the north and northwest sides of a hill the most exposed to cold winds. This orchard was set by the late Timothy Jackson, Esq., and though not of any very great extent, and though not yet perhaps in its prime, it produces annually about 400 barrels of valuable fruit.

The soil of great hills is generally of a far superior quality to that of the plains, and it is a very mistaken opinion which seems adopted by many, that the soil of all hills must of necessity be dry and deficient in moisture. It is the plains and knolls that are but too generally thus deficient;—not the great hills, which are almost found abounding in springs.

This erroneous conclusion has been inferred from the supposition that the subterraneous reservoirs which supply those numerous springs which issue from the sides of most great hills, (and which must be supposed of necessity, to be more elevated than the springs themselves,) receive their supplies wholly from the rains and dews which fall on their sides and summits.

These causes, however, seem totally insufficient to account for this phenomenon; for much of the rain which falls on the hills glides off, seldom penetrating more than a few inches. But the sudden rise of our springs and fountains of every description and of every situation late in autumn, and which always indicates that winter is nigh, even at our very doors, should convince us that the rains alone which fall, are not the primary cause:—for they rise invariably at their appointed time, equally with or without their intervention.

It has been observed, that on the destruction of the forests, many of the springs disappear. Forests undoubtedly, by their shade, have a tendency to keep the soil cool, and consequently prevent the evaporation of its moisture. It has therefore been supposed by *some*, that the forests which crown the summits of many of our high hills and mountains, have the effect of absorbing by means of their leaves, moisture from the atmosphere, which is thence conveyed through their trunks and roots to the earth, to replenish the fountains. They instance in proof of this, the clouds, so frequently seen hovering over those high hills and mountains as though attracted by them.

The truth, however, may be, perhaps, only the more distinctly perceived by renouncing such theories altogether, and by attributing this phenomenon to no other cause than evaporation.

The leaves of trees, if it be admitted that they sometimes may inhale, have nevertheless the property of exhaling moisture very copiously: and as to those clouds so often seen hovering over the tops of mountains, as they are ever considered the precursors of falling weather, they are no doubt caused by that copious evaporation which always precedes rain.

Whence comes it to pass, however, that, as by a law of nature, the springs, the fountains, on the plains, in the valley, and even on the hills and mountains, invariably rise on the immediate approach of winter, and this too, independent of the adventitious circumstance of rain? Does all this happen without a cause? Yet it is very evident that the rains alone, are not the cause?

A very late writer[*] has contended that the springs which flow from the sides of hills, and beneath the surface in wells, have their sources not in the rains and dews, for these causes alone are deemed insufficient; but from the condensation of vapor exhaled beneath the surface of the earth.

But such a theory is only admissible by supposing an increased degree of heat in the lower regions of the earth.

Accordingly it will be found on examination, that most of those writers who have treated on the subject of the earth, have asserted, that from the actual examinations which have taken place, in different countries, it has been found, that after penetrating the earth beyond a limited extent, the temperature begins to increase, and continues increasing, as you proceed downward. As this fact is asserted by the most authentic writers, and has never to my knowledge, been contradicted, but generally admitted, we may presume it cannot now be disputed.

From these premises it might be inferred, that on the immediate approach of winter, the exterior and increased cold, by condensing the vapors of the earth exhaled internally, causes the fountains to rise even to the summits of our highest hills and mountains.

Other auxiliary or independent causes might indeed be assigned. The increased degree of cold on the earth's surface late in the autumnal season, has no doubt a powerful effect in condensing those vapors of the atmosphere which are exhaled during the daytime from the resources and more equal temperature of the low grounds and waters.

I will not however advance further on this subject; I leave it for those more disposed to pursue, and better qualified.

DISTANCES, &c.

Though the distance to which apple trees should be finally set when transplanted to the orchard, has been stated definitively by different writers, yet a little reflection will convince us that no definite rule can be given on this subject applicable to all cases.

The distance depends wholly on the nature of the soil and the cultivation to be subsequently given. If the soil is by nature extremely rich and fertile, 40 feet distance may be allowed, and even 45 and 50 feet in some very extraordinary situations; for ere the trees become old, the ground may be completely covered with their shade. If, however, the soil is not very extraordinary, either by nature, or so rendered by art, the distance would be far too great; for the trees would become old and their growth finished, ere the ground could be covered by their shadow;—30 feet only may therefore be allowed in land usually termed of good quality; and about 20 to 25 in land of middling quality.

The size to which an apple tree may attain, and the ground which should be allotted to it, depends also, in some measure, on the particular variety of apple trees, some sorts being well known to attain to a size much greater than others.

These observations are made to shew the inutility of extending an orchard over a larger amount of surface for the number of trees, than is absolutely necessary:—over a larger extent, than from the nature of the soil, they would be ever likely completely to occupy.

That the apple tree is not a very long lived tree, is sufficiently evident from the perishable nature of its timber. Those species of trees only, will continue living and growing for numerous centuries, whose timber may be preserved incorruptible during the lapse of a long succession of ages.

MANAGEMENT.

If the ground intended for the orchard cannot conveniently be wholly kept in a state of cultivation during the first years, which would be much the best mode, a part at least ought to be.

A strip of land to each row of 8 or 10 feet in width, well manured, may be kept cultivated with the horse plough; and even the vegetables which may here be raised, will amply repay all the expense and labor bestowed during the 4 or 5 first years. After this, if the trees have grown well, as they undoubtedly must have done, cultivation at a distance in the intervals, becomes even more important than within the limited distance of a very few feet from the trunk of the tree.

For on strict examination it will be found that the small fibres or feeders of the roots, by which alone the tree derives all the nourishment it receives from the earth, are now remote from the trunk of the tree; they are now to be found seeking pasture beyond the limits of its shade, and it now becomes necessary that the whole ground should be kept in high cultivation for the 4 or 5 following years; after this period it may be occasionally in grass, which however should be broken up after short and frequent intervals, the ground being always kept in good heart.

PRUNING.

If the branches of a young tree, issuing at and above the requisite height, be made by pruning to diverge from the trunk in every direction above the horizontal, and the interior of these be carefully kept from any interference with each other for a few years, little pruning will ever afterwards be necessary.

The most suitable period for pruning is from about the middle of April to the last of May. Wounds, however, during the longest day in July, heal remarkably soon; for even a tree debarked during this period, renews its bark immediately.

I have noticed notwithstanding, that very late and very severe pruning or heading, by giving to the tree a too sudden shock during the season of its most rapid growth, has the effect of throwing the tree into a sort of paralysis, which, if it do not kill the tree outright, (a circumstance not uncommon,) at least stops its growth for that season.

I noticed this more particularly in a very large thrifty tree of a variety of the Spitzenburg. This tree I caused to be headed down in about fifty different branches, with a view of changing the kind, and the operation was performed about the last of June. The consequence was, that the tree, by this sudden stoppage in its circulation during the season of its most vigorous growth, was thrown into a torpid or dormant state; it grew no more, or but very feebly, during the whole of that season, though it recovered and grew vigorously again the following year.

Trees ought never to be pruned in February or March in our climate, this occasions inveterate canker; this is the season when most trees, and particularly the sugar maple and the vine, are known to bleed most profusely and injuriously. When therefore I discover in an apple tree those black cankered spots where a limb has been pruned off, and the bark for perhaps several feet below, equally as black and perfectly dead, I cannot but be certain that such trees were pruned in February or March, and that such calamities are but the effect of their bleeding.

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[*] Mr. Long.

Old trees in their declining years, should be pruned very sparingly, their trunks being too old for the reproduction and sustenance of a crop of new and fruitful wood; and the old bearing wood should be preserved,—nothing taken away except the dead branches and suckers.

I have seen *old trees*, whose branches were yet annually loaded with fruit, despoiled at once by the hand of man of half their bearing wood, under the mistaken idea that the destruction of the one half of the tree would confer a benefit on the remainder, and render them still more productive. I noticed, however, that the effect thus produced, was directly the reverse, as their total destruction invariably followed as a consequence not long after.

RURAL ECONOMY.

TAMING WILD AND VICIOUS HORSES.

J. S. Skinner, Esq. —— *Parish, South Carolina.*

I live in the country nearly all the year, and am what is called in Carolina, "a small planter," (though I measure six feet,) and am a little of a farmer, though planting and farming are here regarded as distinct occupations—I returned home this evening, when the "day's work was over," and while my wife, who is counted one of the best knitters in these parts, at all events, has the length of her husband's foot to a notch, was finishing a winter stocking for me, I took up for our mutual benefit, "Travels in the United States, by Captain Basil Hall"—on we read until this philosopher of the quarter deck, as our Southern Review calls him, came to discuss the merits of the constitution, conjecture the probable durability of the government and so forth—the chapter, when ended, seemed a long one, and I bid his majesty's officer good night, not thinking him altogether orthodox upon the subject of "popular feeling," or republican institutions. My eyes turned to the mantel piece, and the numbers of the American Turf Register and Sporting Magazine, were there. I opened one of them and my attention was attracted to a communication, headed "Taming Wild and Vicious Horses," and furnished by a correspondent in Elizabethtown, New-Jersey.—I know of nothing more detestable than a baulking horse, and nothing more dangerous than a wild and vicious one, and cannot but regret, that your friend is not at liberty to impart a secret, by which the first may be made docile and true to his collar, and the second be subdued and made obedient to his rider. I hardly expect again to ride any thing less gentle than my chestnut mare Kitty Flanagan, or drive any thing less tractable than my old favourite grey Charley, but I would yet say a word on the score of taming wild and vicious horses. Some ten or twenty years ago, no matter which, I hunted the deer with as much zeal as any body, and as much success as most of my neighbours—I had a friend more addicted than myself to sport of all kinds, as good a horseman as I ever saw in a saddle, and the very best shot, either at a buck, bounding through the forest, or at snipe, woodcock, or partridge, that ever I followed to the field. I have seen him on his hunter, "Black Raven," kill two deer, one with each barrel, both going at full speed, I have seen him flush a covey, and when two birds were in the act of crossing each other, fire and bag them both. We were once pursuing a wounded deer across the old fields, as they are called in a section of this state, known as the "Round O," a herd of horses, almost entirely wild, such as all have seen who reside near, or are acquainted with the country alluded to, set off at a gallop before we were within some hundreds of yards of them, and never ceased running until they reached the wood—it was then he mentioned to me the secret, I am now about to repeat to you, and which, by the by, is no secret at all, for I have told it to many others before you. What think you, said he of taking the wildest of those horses, and taming him to-morrow, sufficiently to go to Charleston the next day? I answered by a look of incredulity—with our three boys and ourselves, can we not get some of them into the large pasture, and then make up the fence too high for their escape? Agreed, and to it we went—by sun down, a gang of fifteen or twenty mares, colts, and stallions, were, after many failures forced within the enclosure. Often they would come to the gap, and halting, would smell the ground, look about them, wheel suddenly, and run a mile without stopping, but they were in at last, and we left them till morning. Breakfast was soon over, and a noose being prepared, with a long line attached to it, we sallied forth to select a proper subject for our experiment. A cream coloured stallion soon shewed himself worthy of the contest. We had five horsemen, and our plan was to separate the cream from the rest of the herd, and drive all out but himself; this was no "boy's play," but at last he found himself alone, his companions had made the water splash, through the deserted rice fields, as far as we could see them, and even when out of sight, the "clanging hoof" was heard more and more faintly, till at length, distance had silenced the tumult of retreat. We now began to approach the cream, as he was soon afterwards called, and the mode we adopted was to mount one rider, pursue our object at full speed, in any direction he might take, and when horse or horsemen flagged, to start a fresh one, who immediately continued the race, so that the cream was always at his best, and had five horses in good condition to contend with—thus we fatigued him, and brought him almost to let us come near him. Effort after effort, was made to throw the noose about his neck; and many the slip, and many the tumble produced by the failure thereof. Once it got fairly over his head, and hung upon his breast, but before it could be drawn taught enough to secure him, he gathered his feet well under him, and making a leap, passed through the rope—these feats, however, were not always to be performed, *his* spirit was giving way, and *ours* was increasing, as we were more and more successful. A fortunate trial, and the noose encircled his neck; he ran off, and the slip knot was at his throat—quickly we were at a tree, and the other end of the cord was made fast to its trunk, it was now too late to hope for liberty again; it was gone for ever; no struggle could reclaim it; we were sure of our captive, and having well secured him, were as willing to rest as the vanquished steed. Thus we left him an entire night, captured and enthralled, and as we thought subdued, but morning came, and the spirit and temper, which to us seemed broken and destroyed, we soon found were only changed. He became alternately furious and sullen; now, if we attempted to go near him, he would bound to the air, and put to trial the strength of his fetters, and now at the severest stripe he disdained to move. Every thing, however, was ready for our purposes, the stable door opened, and more hands being called, we determined to have our prisoner in by main force, and, *nolens volens*, the "cream" was soon, for the first time in his life, stabled and haltered. We paused, each drew a long breath, and the word was, how are we to approach him? He was desperate, and for a moment, the issue seemed yet doubtful—one of the stalls had a large iron ring, fastened to the trough; we passed the end of the cord through the ring, and all of us pulling and urging, the poor fellow could resist no longer; he reared and plunged; we seized the chance, and his head was soon drawn down and firmly fixed. Kicking then, availed nothing; any one of common activity could get over at the side of the stall, and avoid his heels altogether. A handful of tow was ordered and procured; the most fearless of our boys was selected to go in, and as he could no longer move his head, was directed to use the tow in stopping up both ears effectually—this done, he was left to himself for a while; he shook most angrily his matted and uncombed mane, unwilling to submit—but we soon saw him droop—his eyes, no longer flashing their natural fire, had a dull and dizzy look, and his pointed ear no longer erect, hung loosely and heavily about. An hour passed away; he was completely conquered—the sense of hearing, upon which he had so often depended, was entirely gone; the sentinel that warned him of his foes' approach, could speak no more; he was perfectly deaf. A bridle being put on, he was brought out, and "Jim" ordered to mount him bare back—forward he moved, or quietly stood still, in obedience to the whip or the bit, as either were applied. I never saw a more ungovernable horse, or one more thoroughly subdued. I have tried repeatedly the same experiment of stopping up ears; taking away the power of hearing altogether, and never knew it to fail.—It would be easy for me to give you authority in corroboration of my own experience, but the trial is so easily made that all concerned may judge for themselves. In my own mind there is no doubt that this is the secret of many masters of the history of horse breaking, and perhaps our friend Drinnen, may have known all about it.

INTERNAL IMPROVEMENT.

(From the Village Record.)

Extract of a letter from the Jr. Editor, dated
"Anthracite Coal fields,
Luzerne Co. March 21, 1830.

"You ask what we are doing? I answer, climbing the hills—and treading the valleys—looking at coal mines, talking and listening to speculations respecting coal—the probable rise of property, and the business that must be done here. I have been purchasing a few pieces you know, for those who could not well visit the place. Having occasion to examine the records, the following consideration for a tract of land struck me as curious. Date 25 years ago. From Philip Shrawder, Northampton County, to John Arndt—(Mr. Arndt's name, I think you will find to the Constitution of Pennsylvania.) "As well as the long and uninterrupted friendship that has subsisted between him and the said John, and under a strong belief that the continuance will last as long as each of them shall have existence on this side the grave, and also in consideration of one dollar." The land conveyed, was a tract we talked of, called Phillipsburg, on Bowman's creek, 408 acres. A good many purchases are being made here, at advanced and advancing prices—and yet property is low—even low as farming land, without reference to coal. A tract of land was bought last week, of between 30 and 40 acres, butting upon a noble coal mine, where the vein of pure coal was 12 feet thick, from which it was divided only by a creek, (and coal for a considerable distance forms the bed of the stream,) for 20 dollars an acre—well fenced in—easy and pretty land to till, and within 40 rods of an excellent grist and saw mill. Without looking for coal, one would suppose the purchase a safe one. Suppose the vein of 12 feet coal runs through it? And put it at one cent a bushel in the mine.

20,000 tons to the acre.
30 acres.

600,000 tons.
Cents—28, there being as many bushels to the ton.
168,000 00.

168,000 dollars! But that is too much. Well they pay *twice* that per ton, in the mine, at Pottsville.—Why not here? Take then ten cents a ton, instead of one a bushel, and you have 60,000 dollars! Do you wonder public attention is turned towards the coal region? Is not land here, either for coal or farming, the best property that can be bought—the safest investment for capital—better than any stock in the world?

"How do I spend my leisure hours?" I attempted to read—took up Milton; but when I came to

"As one great furnace flamed,"

I looked at the glowing grate, and could not but wonder whether any where was heat more intense. In short, my mind was so filled with coal mines, I could not get through with Milton—so I thought to slide along in the smooth numbers of Pope. I went through "Vertumnus and Pomona," with pleasure, for it was a great while since I had seen it; but when I took up his Essay on Man, could not help reading,

"If Coal he miss—attended with no pain—
But joy unequalled if a MINE he gain.
Lo two consistent notions move the soul,
And one regards the LAND and one the COAL."

A fig for poetry thought I.

Wild pigeons are flying here in abundance, and the lads have fine sport. Two nets are in sight from our house—they take many dozens a day, and I have no doubt there have been a thousand pigeon pot-pies eaten in the county during the last ten days. The check about the canal being extended this summer, gives great advantage to purchasers. Several capital bargains are offered. If any of your acquaintances wish to invest from a thousand to 10,000 dollars, now is their time."

LADIES' DEPARTMENT.

(From the Journal of Health.)

ON TAKING LAUDANUM.

The evil to which we now direct the attention of our readers, and entreat them to abandon or shun, as the case may be, *is not confined to either sex* exclusively; nor is it one for which the inconsiderateness of youth, or the infirmities of age, can be pleaded as palliation.

However repugnant to our feelings as rational beings may be the vice of drunkenness, it is not more hurtful in its effects than the practice of taking laudanum. Disgusting and repulsive to the eyes of others, and injurious to the indulgers in it, as is the chewing of tobacco, it is not more censurable, nor so much to be dreaded in its consequences, as the habit of chewing and swallowing opium, to mitigate unpleasant feelings, or remove melancholy. Some have habitual recourse to laudanum or opium, to relieve pain and uneasiness, caused usually by the undue gratifications of their appetite. Let them learn, that there is no example on record of any agent used for medicinal purposes, in particular diseases or alarming emergencies, which has on these occasions a direct, controlling, and sanitary power, that will not, when persistently used, become noxious to the animal economy, and poison all the springs of life. It is thus with wine, alcoholic liquors, opium and laudanum, and the various tinctures and cordials of which opium is the basis: it is thus with all the vegetable bitters and mineral tonics without exception. All the powders and cordials which have been recommended for the cure of gout, have invariably, when taken for any length of time, destroyed the digestive powers, enfeebled the brain and nervous system, and often brought on dropsy, palsy, and apoplexy. A physician, after due deliberation and much counsel with himself or medical friends, will prescribe mercury, bark, opium, or perchance arsenic, for the cure of the violent and dangerous malady under which his patient is laboring at the time; and his efforts will often be crowned with success. But let this patient, of his own accord, or under the pestilential influence of domestic or empirical advice, use any of these articles for a length of time, and, for one uneasy symptom which he wished removed, ten will take its place; and his constitution will be so broken down, that even his first successful adviser and medical friend, can now be little more than a melancholy spectator of remediless decay. This is not the language of exaggeration or speculative fear. We speak from a full knowledge of the facts. We repeat it—the person who gives into the habits for weeks, (he may not reach to months, or if he pass these, his years will be but few and miserable,) of daily measuring out to himself his drops of laudanum, or his pills of opium, or the like deleterious substance, call it tincture, solution, mixture, potion, what you will, is destroying himself as surely as if he were swallowing arsenic, or had the pistol applied to his head. The fire of disease may for awhile be concealed—he may smile incredulous at our prediction: but the hour of retribution will come, and the consequences will be terrible.

Besides, who are the unfortunate creatures, who in impious despair, destroy themselves by poisoning with opium or laudanum? The very same who had long been in the practice of using it as a soother and a balm: as a mean of procuring repose after the languor of idleness, or the perturbations of vice. Miserable resource from care or grief! to stupify one's self with such a drug for a few short hours, only to awake in renewed despondency, with a mind paralyzed and unfitted for the commonest duties of life. The countenance of the unhappy victims of the practice reveals too painfully to an observant eye their condition. The expression is more haggard, and the features more distorted, than even from common drunkenness, and produce on others a mingling feeling of pity and fear. The humid lustre of the eye is exchanged for a dull, turbid and dejected appearance of this organ, which is sunk in its orbit: the rounded cheek, once flushed with the glow of health, is now pale or leaden; and the corners of the mouth no longer raised into ready smiles, have a downward direction, indicative of suffering alternated with listlessness and apathy. The moral nature is not less fearfully changed than the physical. All manly resolution is fled:—to think is too great an effort; the sight of distress elicits childish grief without furnishing sufficient incentive to its relief or mitigation. Not very different, in fine, is the confirmed opium-taker from the torpid animal warmed into motion by artificial heat; it twists itself about, attempts some gambols, or with impotent malice, tries to bite and annoy those near it. But in a few minutes the stimulus of heat is gone, and it sinks once more into the same torpidity.

MISCELLANEOUS.

(From the National Gazette.)

FRANKLIN INSTITUTE.

Address of the Committee on Premiums and Exhibitions of the Franklin Institute of the State of Pennsylvania, with a list of the Premiums offered to competitors at the exhibition to be held in September, 1830.

To the Artisans and Manufacturers of the United States.

The sixth exhibition of the Franklin Institute, of the state of Pennsylvania, for the promotion of the mechanic arts, will be held at Philadelphia, on the 14th day of September, 1830. The managers earnestly recommend this exhibition to the attention of the public, in the expectation that it will be considered a matter of national concern, and that so much interest will be manifested in its success, as will bring together whatever is useful, as well as of superior excellence, among the productions of our country.

The main objects are, to encourage and stimulate the industry and ingenuity of American artisans and manufacturers; to introduce consumers and producers to each other; to acquaint our merchants with the elements and materials of commerce, and our statesmen, and the public with the resources of the country. The exhibitions which have already been held in this city, and other parts of the union, undoubtedly have done much to promote these desirable ends.

The exhibitions are necessarily attended with much expense and trouble. The managers cheerfully undertake the portion which falls to their share, and will spare no exertion to satisfy the expectations of the public, and render this exhibition creditable, as well as useful to the country. Yet, after all, their success depends upon the support they receive from their fellow-citizens, in every branch of trade, and their alacrity in bringing forward the productions of their industry and skill in their respective departments.

In forming the list of premiums, the managers have been anxious to induce attention to such articles of real value, as the country seems well calculated to produce, and to others, the production or perfection of which, is still *a desideratum*, and which may, at no distant time, become profitable articles of trade, excluding from the list, premiums for articles, the sole merit of which consists in the excellence of workmanship. They have also added a few premiums for essays on subjects, the elucidation of which will tend to the advancement of knowledge in mechanical science.

The great difficulty of reporting satisfactorily, on all the numerous articles which may be exhibited, will compel the committee to confine their report, to a description of those only that are offered for premiums, or such as may be considered particularly worthy of notice on account of originality in design.

Articles of extraordinary merit, not contained in the following list, may receive honorary premiums on the award of the managers.

The exhibition will commence on Tuesday, the 14th of September, and will continue open four days.

The owners of goods may transmit information respecting prices, terms, &c., to William Hamilton, Actuary, at the Hall of the Franklin Institute, to whom all inquiries and communications respecting the exhibition, may be addressed, and will receive prompt attention.

JAMES RONALDSON,
SAMUEL J. ROBBINS,
MATHIAS W. BALDWIN,
BENJAMIN REEVES,
ISAIAH LUKENS,
FREDERICK FRALEY,
THOMAS U. WALTER,
JAMES M. BOLTON.
Committee.

Published by order of the Board of Managers.
S. V. MERRICK, *Chairman.*

Philadelphia, March 1, 1830.

PREMIUMS.

1. *Iron Castings.*—To the maker, in Pennsylvania, of the best specimen of iron castings, fit for machinery, to be soft, smooth, and free from sand; two hundred pounds to be exhibited—a silver medal.

2. *Tinned Cast Iron Hollow Ware.*—For the best specimen of tinned cast iron hollow ware, for culinary purposes; not less than twenty-four pieces to be exhibited—a silver medal.

3. *Iron Hollow Ware, coated with Porcelain.*—For the best specimen of cast iron hollow ware, coated with porcelain, similar to that imported from Germany; not less than twelve pieces to be exhibited—a silver medal.

4. *Sheet Iron.*—For the best specimen of sheet iron, equal to that imported from Russia; not less than twenty-four sheets to be exhibited—a silver medal.

5. *Cast Steel.*—For the best specimen of cast steel, in bars of from half to one and a half inches square, manufactured in the United States, not less than one hundred pounds to be exhibited—a silver medal.

6. *Smelting Iron Ore with Anthracite.*—To the person who shall manufacture, in the United States, the greatest quantity of iron from the ore, during the year ending September 1, 1830, using no other fuel than anthracite; the quantity to be not less than twenty tons—a gold medal.

7. *Stock or Standing Vice.*—For the best stock or

standing vice, equal to those called Tower vices, and weighing thirty pounds, or upwards; not less than three to be exhibited—a silver medal.

8. *Wire.*—For the best specimen of brass wire, assorted sizes; not less than two hundred pounds to be exhibited—a silver medal.

9. For the best specimen of iron wire assorted, from No. 10 to No. 30; not less than five hundred pounds to be exhibited—a silver medal.

10. *Pig Brass.*—For the best specimen of pig brass, the zinc used to be the product of the United States; not less than one hundred pounds to be exhibited—a silver medal.

11. *Brass Battery Kettles.*—To the maker of the best brass battery kettles; not less than one dozen to be exhibited—a silver medal.

12. *Plated Ware.*—To the maker of the best specimen of silver plated goods, in imitation of Sheffield ware; not less than twenty pieces to be exhibited—a silver medal.

13. *Cooking Stove.*—To the person who shall exhibit an apparatus for cooking with anthracite coal, which will perform the various modes of cooking, and shall not cost more than fifteen dollars—a silver medal.

N. B. The maker must obligate himself to furnish any required number, at the same price, and of equal quality.

14. *Steam Boiler.*—To the inventor of the best constructed furnace and boiler, superior to any now in use, for consuming anthracite, in generating steam, to be applied to steam engines—a silver medal.

Note. Certificates will be required of the furnace having been some time in use; of the quantity of coal consumed, and of the effect produced.

15. *Mountain Barometer.*—To the maker of the best portable mountain barometer—a silver medal.

16. *Lithographic Stone.*—To the inventor of the best composition, that can be used advantageously, as a substitute for lithographic stone—a silver medal.

17. *Leather.*—For the best specimen of leather, in imitation of Russia; one dozen skins to be exhibited—a silver medal.

18. *Sewing Silk.*—To the maker, in the United States, of the greatest quantity of sewing silk, of a good quality, not less than fifty pounds to be made; at least ten pounds to be exhibited—a silver medal.

19. *Linen.*—To the person who shall manufacture the best specimen of linen, in imitation of the Irish shirting; not less than fifty yards to be exhibited—a silver medal.

20. *Brussels Carpet.*—To the maker of the best Brussels carpeting; not less than one hundred yards to be exhibited—a silver medal.

Note. The quality of the colours will be considered in awarding this preminm.

21. *Cabinet Work.*—To the journeyman, or apprentice cabinet maker, who shall produce the best specimen of cabinet work, designed and executed by himself—a silver medal.

22. *Marbles.*—To the person, in the United States, who shall establish the manufacture of the finer qualities of marbles, such as are imported from Germany, and believed to be manufactured in Sonneburg, near Coburg, Franconia, and shall make fifty thousand during the year 1830—a silver medal.

23. *Glass.*—To the manufacturer, in Pennsylvania, of crown glass, who shall make, at least, three thousand feet during the year 1830; not less than five hundred square feet to be exhibited—a silver medal.

24. *Inventions, or Discoveries.*—To the person who shall discover a material for paying or painting the bottoms of ships, superior to taring, or the paints heretofore used—a silver medal.

25. To the person who shall discover a material for putting upon the timbers or planks of ships, superior to any thing now used for preventing the dry rot —a silver medal.

26. To the journeyman or apprentice in any trade, who shall invent or discover a really useful improvement in the art he practices—a silver medal.

27. *Madder.*—To the person who shall cultivate the greatest quantity of madder, the produce of not less than a quarter of an acre; samples must be exhibited, with a certificate of the quantity produced—a silver medal.

28. *Vegetable Oils.*—To the maker of a vegetable oil that will answer as a substitute for olive oil; not less than one hundred gallons to be made; at least five gallons to be exhibited—a silver medal.

29. To the maker of a vegetable oil that will answer as a substitute for spermaceti oil; not less than one hundred gallons to be made; at least five gallons to be exhibited—a silver medal.

30. *Soap.*—To the individual, or company, that shall make the greatest quantity of soap, from vegetable oils produced in the United States; not less than five hundred pounds must have been made; and not less than fifty pounds to be exhibited, accompanied with the name of the plant from which the oil was produced—a silver medal.

Note. The Institute, in offering these premiums on oil and soap, have in view the two-fold object of rendering the United States independent of foreign nations for these important articles, and adding them to our list of exports. They are equally worthy of the attention of men of science, and all who are engaged in agriculture.

From scientific processes, aided by the unlimited power of the hydraulic press, &c. on the one hand, and on the other the capacity of the United States to produce rape, cotton, sunflower, benè, palma christie, poppy seed, ground-nuts, &c. &c. it is evident that these may open new and profitable employments for industry, and add to the wealth of the country.

31. *Steam Carriage.*—To the person who shall first successfully introduce a carriage, to be propelled by steam, adapted to travel on turnpike roads—a gold medal.

32. *Rail-road Car.*—To the maker of the best rail-road car.

33. To the maker of the second best rail-road car.

The particulars of these premiums will be given hereafter.

34. *Canal Boat.*—For the best model of a boat, adapted to the navigation of canals, as a freight boat; regard must be had not only to the mould or form, that will carry the greatest load with the least resistance, but also to the manner of construction for strength and stability, as well as convenience of arrangement in every department, and must combine more advantages than any now in use—a silver medal.

35. *Essays.*—To the author of the best essay on the most economical mode of generating steam with anthracite coal—a silver medal.

36. To the author of the best essay on the comparative effects of high and low pressure steam, taking into view the cost of erecting, and expense of maintaining the respective engines—a silver medal.

37. To the author of the best essay on heat—a silver medal.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 9, 1830.

☞ WHO WANTS HOUNDS TO SUMMER AND BREED FROM? Three sluts and two dogs, all of the best blood, collected, some from sixty, some from an hundred miles, on account of their blood and good qualities, will be let out *for the summer* on these terms: The person taking them to give them up again on demand and in good order, the first of October next, except the old dog Tanner, (a large dog of powerful and compact frame, white spotted or rather *flecked* with *bright* yellow,) who may be retained; the owner desiring only to get some of his stock by one of the bitches. It must be understood that the owner of the dogs will have a right to *his choice* of one third of the stock raised and living on the first day of October 1831. Here is a fine chance for young sportsmen to get into good stock, and the old dog is excellent to break young ones with. Inquire of the Editor of the American Farmer.

☞ Our correspondent on the subject of horse-breaking is mistaken; the plan of stuffing the ears to produce deafness and docility is by no means a secret; it may answer in some cases, and to a certain extent, but is not the system of the man in Louisiana. On the contrary, it is expressly stated, that in his case, as well as the one in Ireland, the horse would come at *the call*, or stop, if going, at *the command* of the master.

LATEST FOREIGN NEWS.

English papers to the 25th of February, have been received at Boston.

The Duke of Wellington had commenced his promised retrenchments. They had produced of course much excitement among the placemen and pensioners. No reduction is to be made in the extent of the military or naval establishments, but a stricter system of economy is to be introduced in their management.—The saving in the army will amount to £453,146; in the ordinance £29,000; navy £273,000; miscellaneous estimates £276,000; interest of Exchequer bills £180,000.

In the House of Commons on the 19th, the Chancellor of the Exchequer brought forward his estimates for the expenditures of the year, in which he proposed various reductions in the various branches of the service, compared with the expenses of the last year, amounting in all to £1,300,000. The motion for the military supplies was carried, in opposition to an amendment for a further reduction moved by Mr. Hume, by a vote of 255 to 93—majority 162.

On the 18th, there was a long debate in the House of Lords on the affairs of Portugal, and on the same night, in the House of Commons, Mr. Peel brought forward the proposed reforms, referred to in the King's speech, in the Courts of Common Law. The proposed improvements were explained by Mr. Peel in a long speech. Mr. Brougham declared his concurrence in the proposed measures, as far as they went, and said that if he should differ with Mr. Peel in the subsequent discussions, it would be because he might think he had not gone far enough. Leave was given to bring in a bill.

The meeting in London, to consider of the agricultural and commercial distresses of the country, was held on the 22d February. It was most numerously attended—the Lord Mayor in the chair. A series of spirited resolutions were adopted. Mr. Hunt moved a resolution in addition which was unanimously adopted, which stated that the distress was to be attributed to the long, bloody and extravagant war, waged and carried on against the liberties of the people of America and France, during the reign of George the Third, which war was, it is true, sanctioned and abetted by a very large majority of a self-elected House of Commons; and these distresses will never be relieved till there is a real, effectual, and radical reform in the Commons House of Parliament.

The following semi-official paragraph respecting the future Governor of Greece appeared in the Liverpool Courier of the 24th.

As much contrariety of opinion as to the future destiny of Greece continues to prevail, we think it proper to state, as a fact within our own knowledge, that the arrangements on that subject are definitively completed and ratified. The supreme power is to be vested in the hands of Prince Leopold, with the title, we believe, of Sovereign Prince.

A meeting of the manufacturers and other persons interested in the stuff trade was held at Leeds Feb. 15, at which a petition to Parliament was agreed to, praying for the imposition of a tax upon power-looms

Distress in Edinburgh.—A committee to relieve the unemployed poor has been appointed in Edinburgh. About 5,000 persons have applied for relief, but tickets for soup have only been administered to 500 of the most destitute. The amount of money subscribed is only about £400. In 1819, the amount subscribed for a similar purpose was £14,000, which was all expended; and in the present instance the wants of the poor, and the number requiring aid are equally great.

Distress in Wales.—From all parts of the Principality accounts reach us of the distress which is spreading abroad far and wide among the working classes, and which will be further augmented by the additional number of miners about to be thrown out of the partial employ they now receive. At Holyhead, coals, bread, and soup, are distributed on stated days in the week. At Bangor similar subscriptions are entered into for the distribution of coals, oatmeal, and potatoes, among the poor of that place.

Extract of a letter, dated Liverpool, Feb. 23, 1830.

The demand for Cotton has been variable since the commencement of the year. Up to the close of last week the sales in that period were about 96,000 bags, of which about 10,500 were on speculation, and the imports were 88,000 bags. Of late the demand has run very much upon uplands, and the sales of that description in the last three weeks were 32,000 bags.

New Uplands, though they now arrive not equal to the first imports, are yet of so good a quality, as to be a very desirable purchase to spinners. The prices now giving are chiefly 6 3-8 to 6 5-8d, with occasional sales at lower and higher rates, according to the quality.

Sea island Cottons have not maintained their price. Pretty good Charleston Cottons have been sold at 12½d. but even at this price it appears that the consumption is diminished, and that Egyptian and Brazil Cottons are used as substitutes. What alone keeps up Sea islands to their present currency is the knowledge that the crop has been a very short one. We quote the general prices of Cotton this day. Upland, ordinary, 5¾d; middling fair, 6 1-8d; fair, 6 3-8d; good fair, 6 5-8d; good and fine, 6¾d a 7d; Orleans, ordinary, 6d; middling fair, 6¼d; fair, 6 5-8d; good fair, 7 1-8d; good and fine, 7½d—8d; Tennessee and Alabama, 5¾d a 6¾d; Sea island, stained and sawginned, 5d a 11d; inferior, 11d a 11½d; middling, 11¾d a 12¼d; fair clean, not fine, 12¼d a 13d; good clean, rather fine, 13¼d a 15d; fine and clean, 15d a 20d; Pernambuco, 7¼d a 8d; Egyptian, 6¾d a 9d; Surat, 3½d a 5¾d.

Of the future state of the market we may say, that we have no expectation that the prices will fall as they did last year. The stock in this country and in Europe generally is light, the consumption is great, prices are moderate, and there is not in prospect any ground for believing that we shall have an over supply of cotton. There are even opinions entertained by some that without some enhancement of price there will not be inducement to grow sufficient cotton for the supply of trade. This, however, is perhaps taking an extreme view of the case; and we may remark, that to us there is not any doubt that an advance in cotton would at once materially diminish the consumption. The great extent of the cotton trade has been owing to the low price of the raw material, and the low rate of wages and of profit, and it is difficult to estimate how quickly the demand for goods and twist ceases upon any material advance taking place in prices. In the mean time there is a very good demand for cotton, and much confidence in the market, but we have yet received less than 6000 bags of the crop from the Gulf of Mexico, and the effect of arrivals from thence has not, therefore, yet been felt.

We have had some export demand for flour, and the best quality has been selling in bond at 26s to 27s per brl. Were a larger supply at market, the demand for export would scarcely maintain the price; but there are some persons sanguine in the opinion that our prices will be higher, and that the duty on flour, now 18s 5d per brl. will be materially lower before harvest. The best Irish wheat is selling at 8s 9d to 8s 10d per 70 lbs., and American flour, for home use, would bring about 38s per brl.

The last sales of Flaxseed were at 60s. per cask, and three guineas are now asked.

Turpentine is in fair demand at 9s 6d to 11s 9d per cwt., and it appears likely to support these rates for the present. Tar is dull at 11s to 12s per brl.

Liverpool, *February* 25, 1830.

Yesterday the business done in cotton was immense; from 8 to 10,000 bales were sold, chiefly it is said to the trade; half Brazil, half American. Prices have advanced this week 1-8 a ¼d. on cotton, generally; but this advance in Uplands, applies more immediately to the low and middling qualities—none sell above 7d. and we now quote 6d a 7d. Business is going on well in Manchester.

Prices Current in New York, April 3.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .8¾ a .10¾; Alabama, .9¼ a — *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .19. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4. 69a 4.75 Canal 4.75 a 5.25; Balt. Howard st. 4.87 a 5.00; Richmond city mills, 4.87½ a 5; country, 4.69; Alexand'a, 4.69 a 4.81; Fredericksburg 4.62½ a — — Petersburg, 4.62½ a —— Rye Flour, —— a 2.87½; Indian Meal, per bbl. 2.50 a 2.75; per hd 12.75 a —— *Grain*, Wheat, North, 90 a 96; Virginia, 77 a 80; Rye, North, 60 a 62½; Corn, Yel. Nor. .49 a 50; Barley, — a — Oats, South and North, .27 a .34; Peas, white, dry, 7 bu.— Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.00 a 9.50; prime 5.50 a 6.25; cargo ——a 4.50; Butter, N. York, 12 a 16; shipping, .6 a 10; Lard, .5½ a .6; Pork, mess 12.00 a 12.50; prime 9 a 9.50

Prices Current in Philadelphia, Agril 5.

Bees-wax, yellow .20 a .22; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 12.00 a —— prime 8 a 9, cargo 7; *Butter*, No. 1, 7 a 9, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½, Upland 10. a .11, Tennessee 9½ a .10, Alabama 9½ a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .7 a .7½. *Flour*, sup. 4.50, fine, 4.00 a 4.25; Rye 2.94 a 3.00; Corn meal, hds. 11.00 a ——, bls. 2.12½ a 2.25; *Flaxseed*, cask ——; bu. 1.28 a ——; *Grain*,—Wheat 85 a 90—Rye 48 a 52, Corn l. c. white, .33 a .34, l. c. yellow, 37½ a .38½, u. c. round, 40 a 42; Oats .23 a .27, Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .7; *Oil*, linseed, 70 a 72; *Pork*, mess, 12.00 a ——, prime 10.50 a 11; cargo 9.50. *Rice*, 2 25 a 3.90; *Tobacco*, Kentucky .5 a .7, Vir. .4½ a .7.

GARDEN & FIELD SEEDS.

J. S. EASTMAN, at No. 36 West Pratt-street, would inform his customers and the Public generally, that he has now on hand a general assortment of Messrs. D. & C. Landreth's GARDEN SEEDS, of Philadelphia—who have given the following information respecting their Seeds, viz:

For the information of those who may be interested and unacquainted with the fact, they beg to say, that all Seeds sold by them (with a very unimportant exception) are grown upon their own grounds: a portion of which is separated two miles; the more effectually to obviate the well known propensity in some Vegetables to commingle; and that from the time the Seeds are sown, until the crop comes to maturity, they are under their personal inspection—thus they are enabled most unequivocally to warrant them, as regards freshness and purity. In most articles of merchandise, the purchaser can form some estimate of the quality; but in Garden Seeds, it is not so—their age and variety are problems to all but the *positive grower*, to be solved only by a trial of them, at an expense of money, land, labour and time; hence a manifold vexation if unsuccessful. The *mere vender*, who depends upon foreign growth or transient purchases for his supply, though he may have exercised his judgment upon Seeds for a lifetime, yet cannot possibly avoid deception only by actual test, which requires a length of time frequently longer than the interim between their reception and the season of demand; hence a decided advantage in dealing with *first hands*.

Constantly on hand, Clover, Orchard Grass and Herds GRASS SEEDS, and a general assortment of the most improved AGRICULTURAL IMPLEMENTS, &c.

ALMANAC.

1830. April.	Sun. Rises.	Sun. Sets.	Length of days.	Moon. rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 10	5 33	6 27	12 54	8 45
Sunday,...... 11	5 32	6 28	12 56	9 30
Monday,..... 12	5 31	6 29	12 58	10 20
Tuesday,.... 13	5 30	6 30	13 00	11 13
Wednesday, 14	5 29	6 31	13 2	0 10
Thursday,... 15	5 27	6 33	13 6	1 10
Friday,....... 16	5 26	6 34	13 8	1 45

Moon—Last Quarter, 15th, 7h. 13m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—A tolerable business has been done the past week in our market, at the rates quoted. A slight improvement will be noticed in flour, the wagon price being $4.25 a 4.31¼. The beef market is well supplied both in quality and quantity, and our highest rate is obtained for the best.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6 00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 263 hhds Maryland, 9 hhds Ohio and 6 hhds Kentucky, total 278 hhds.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.37½ *a* 4.44; city mills, 4.12½ *a* 4.25; Susquehanna, 4.25. Corn Meal, bbl. 2.25—Grain, best red wheat, 87 *a* .88; best white do. .87½ *a* .90; ordinary to good, 80 *a* 85—Corn, white, .33 *a* 34—yellow .35 *a* .36—Rye, .45 *a* .48—Oats, .29 *a* —— Beans, 90 *a* 1.00—Peas, .65—Clover seed, 4.37½ *a* 5.—Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, 55 *a* 60—Flaxseed, 1.06 *a* 1.12½—Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½*a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .20 *a* 20½; in bbls. 22½ *a* 23—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 120*a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.25 *a* —— No. 2, 6.00—No. 3, 3.50 *a* 4.00——Bacon, hams, Balt. cured, .9 *a* ——Feathers, .30 *a* ——Plaster Paris, cargo price per ton, 5.00 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 38.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.75 *a* 5.50—Pine Wood, by the vessel load, 2.00—Oak Wood, 2.62½ *a* 2.75—Hickory, 3.62½.

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AGRICULTURE.

THE MULE.

An Essay on the natural history of the Mule, (Mules Equius) *and a comparison of its utility in Agriculture with that of the horse, by James Hood, of John, Baltimore county.*

The mule is a hybridous animal, and like other animals which are the product of two different species, is incapable of propagating its kind; it may be engendered either between a horse and the ass, or between a jackass and a mare; of which two varieties, the latter is preferable; being larger, stronger, and better shaped. In its appearance the animal partakes of the nature of both its progenitors, its head, neck and belly resemble those of the ass, and are disproportionate; in its limbs, however, we discover the graceful outline, the freeness of motion, and the admirable display of muscle, which characterize the horse; it is generally smaller than a common sized animal of the latter species, but in Spain, where great attention is bestowed upon its improvement, it has been known to be seventeen hands high. In its disposition it is naturally wild, and ungovernable, but in this respect it is susceptible of great improvement, by a proper education; and the obstinacy which it exhibits at times when domesticated, is oftener the result of an improper treatment, than an inherent ill nature. Its hoofs, which are small and of an oval shape, are remarkable for solidity and hardness, and as it moves with a firm and clear step, they are very rarely injured, and need but little artificial protection. It is naturally liable to but few diseases, inheriting the hardy constitution of the ass, while it is exempt from the tenderness of the horse. No insects are generated in its skin, as in that of the horse, which are dangerous to its life, nor does it languish and pine away like him, when it is put upon poor fare: the scanty herbage of the Alps and Andes are sufficient to satisfy its desire, and it performs journeys by slipping, or rather sliding down the precipices of those mountains, carrying heavy burdens during the day, and seeking food during the night, while it manifests, at the same time, the warmest attachment to those who thus exact its toil, without supplying its wants. Another remarkable trait in the history of the mule is its longevity; it retains its vigour to an age more than double that at which the horse begins to decline; though it is generally exposed to innumerable hardships, the effects of time upon it are generally first manifested by a diarrhœa, which is probably owing to the failure of its digestive organs, in the performance of their functions.

The writer of this essay, after thirty years experience in the use of the mule, and a close observation of its manners and nature during that time, is fully convinced of its superiority over the horse for agricultural purposes. The circumstance which led him to prefer their use in this way, was somewhat singular; when he first commenced planting and farming, he settled in a neighbourhood of one of his acquaintances, who prided himself upon keeping a team of large and fat horses, the greater part of which were frequently idle; being a near neighbour he immediately caught the horse mania from him, and set up and supported a team for near three years, at a considerable expense; finding at this time that his horses were consuming nearly all the grain which his farm produced, that he was taxed each year with a smith's account, to a large and unnecessary amount, and that, in addition to all this, he frequently suffered the loss of a horse by some one of the numerous diseases to which horses are liable, he resolved to use them no longer; he found, in fact, that he would be labouring for nothing but the support of his horses, if he persisted in their employment; and his attention was at once turned towards the mule, (and oxen,) purchasing at first some of the smaller kind, which were commonly known by the name of the yankee mules, he resolved to do the work of his farm by their assistance, (and the use of oxen,) until he could procure such as would suit for the draught, and till then pay for the conveyance of his produce to market. After having carried on the business of his plantation in this way for several years, and noted the difference between his expenditures when compared to former times, he found that the grain saved by the substitution of mules for horses, in the drudgeries of his farm was more in value than double the amount necessary to pay for the carriage of his crop to market; in addition to this he lost very little by disease or accident, his smith's bill was comparatively trifling, and he was relieved of the expense consequent on the wear and tear of a road wagon; those of his neighbours who have contrasted the appearance of his stack-yard and corn-loft at the present, with its former condition, can bear testimony to the truth of these statements.

As there is a prejudice prevailing in this country against the use of the mule for farming purposes, which can only be done away hy statements and calculations on facts, the following is submitted as the result of the writer's individual observation and experience; he supposes, what he has found to be the case, that six horses are necessary to do the work of a common sized farm,—the expense of shoeing and keeping six horses for twelve months, will be on the most moderate calculation $264. A like number of mules for the same time $132, leaving in favor of the mules an annual balance of $132. This account will not appear exaggerated if we present the details, by a reference to the difference between the two animals in their manner of stepping, and the consequent difference in the expense of keeping their feet properly protected; it appears that a horse requires shoeing four times a year, the expense of which, will amount, in all, to $3 50. Now, the mule, if properly managed, need not be shod more than once in the same time; in this one item, therefore, it will be less expensive than the horse by $2 62½ each, per year, making between the six horses and six mules, the sum of $15 75: the writer has been accustomed to have his mules shod during the icy season annually. We next turn our attention to the difference between the horse and the mule, in regard to the quality and quantity of their food; the former animal must be more or less supplied with grain during the whole year, otherwise he will grow thin and become unfit for hard labour; this, however, is not the case with the latter, when the pastures are good, he can subsist on grass alone, and in the winter season, when he is not worked, he can feed on hay, and in either case, he will lose nothing on the score of health and strength; when employed in the labour of the farm, the writer has been accustomed to feed them, either on cut straw and chopped rye, or Indian corn; of the former he generally allowed to each, one quart to about a peck of straw, of the latter, four to eight ears at a meal, and a horse doing the same work, will eat nearly double; a mule therefore may be supplied with food and kept in good condition, at less than half the expense requisite for the horse. And if we again resort to figures we shall see clearly the great saving which might be gained, by taking proper advantage of this difference between the two animals; six horses we have seen cannot be fed and shod at a less amount per annum,

than - - - -	$264 00
The same number of mules may be supplied for - - - -	132 00
Leaving a balance of	$132 00

And if now the comparative delicacy of the constitution of the horse, his liability to disease, and the greater amount of attention and pains which he requires, are taken into the account, it will appear, that the above calculation, instead of having been exaggerated, exhibits a balance in favour of the mule, rather less than the reality. We next invite attention to the difference between the two animals, under a consideration in point of longevity: a horse is very rarely fit to do effective service, after he shall have been employed twelve years; a mule, on the contrary, retains his strength during a term of labour, more than twice as long; proceeding upon these data, we will make an estimate of the expenses of the horses necessary to stock a farm, such as is above mentioned for twenty-four years.

Multiplying $264, the annual expense of six horses, by twelve, we shall obtain the cost of one set of those animals during the time they are able to labour, - - -	$3,168 00
The horses are then worn out, and it will be necessary to procure a new set, each of which we will suppose cost $80,	480 00
Adding again the amount of their support during the remaining twelve years,	3,168 00
Total cost -	$6,816 00

Let this sum be compared with that which is sufficient to keep the plantation stocked with mules.

The shoeing and keeping six mules during 24 years, will amount to -	$3,168 00
Subtract this from the amount necessary to the same number of horses the same time, - - - -	6,816 00
We shall have the difference between them, - - - -	$3,648 00

Facts thus plainly stated, and calculations thus clearly made out, ought to be sufficient to convince any man of the advantages he would gain, by substituting the mule for the horse in the labour of his farm; they are particularly worthy the attention of those whose plantations are small; it is only by noticing and taking the advantage of circumstances like these, that such persons can pursue their business without embarrassment; farmers and planters live more independently of a circulating medium than any other class of men in the community, but still the structure of society is such that they cannot be wholly disconnected with it, and this connexion, slight as it is, may involve them in difficulties, unless they pay the strictest attention to economy. There is probably no one instance, in which agriculturists will feel the force of these remarks, more than in the payment of their taxes: of this we will avail ourselves on the present occasion. Taxes must be paid in money; this is a demand which may endanger the tenure by which they hold their land, unless it be promptly satisfied, and he who has expended his produce unnecessarily, will run a great risk in experiencing the worst effects of such avoidable waste. Now it will be seen by a reference to the calculations which we have made, that many, by reason of an unwarrantable prejudice against the mule, waste an amount in fattening and keeping horses which would be more than sufficient to pay their taxes. Can any one then be called an economist, who does not prefer the mule to the horse in performing the work of his plantation? and the writer is of opinion, that if the prejudice against the mule was done away, and a proper attention given to the raising and breaking of them, that the mule would be more serviceable in the coach or stage than the horse. In Germany they are highly valued by the nobility, who drive them in their coaches; the writer has raised some mules that are perfectly manageable, and the wild nature so completely overcome and done away, that they are as fond of being handled as house pigs, even on that part which the mule is so tenacious of suffering to be touched, which is his ears. Whether this objection arises from an instinctive knowledge of the consequence of his ears, they being the most prominent feature by which his (*don*) character is determined, I know not.

There is another important circumstance which ought to be taken into the account; we allude to the patience of the mule under suffering, it appears to endure neglect or ill treatment in a manner which makes it peculiarly proper in many parts of this country, where the live stock of a farm must be left in a great measure to the care and management of negroes. It is well known, that this class of mankind almost universally abuse and neglect horses, although these animals cannot endure ill treatment; every man of humanity therefore, will feel it his interest and duty, when it is in his power, to entrust his slaves with such animals only as will not be likely to suffer from their neglect.

The writer will conclude with a few remarks on the rearing and manner of feeding mules. The mares selected for the purpose of breeding and raising the colts, should be gentle, good tempered, large, and kind to work; in the time of sucking the mothers should frequently be employed, in order that frequent opportunities may be obtained for handling and taming the colts, and rendering them familiar with their keepers: by pursuing this plan the wild nature may be entirely overcome, and the ungovernable disposition subdued, and the mule rendered as manageable, and as harmless as the horse. We have already touched upon the method of feeding mules, but we have to mention in addition, a mode of preparing corn for this purpose, by which when it becomes hard and indigestible, he has found that two thirds of the quantity required in the common way will be sufficient to keep working animals in good order. About Christmas, when corn begins to be hard to grind, he has been accustomed to soak it in weak ley, made by putting a peck of hickory ashes into a barrel, then filling it with corn, and then pouring on water as much as the barrel will hold; care should be taken that the corn be not soaked too long, otherwise the animals will refuse to eat it; during warm weather, it should be permitted to remain in the ley twelve hours, in cold weather twenty-four hours. By this mode of preparing the grain, there is another advantage gained; it would seem that the alkali which is thus conveyed into the stomachs of the animals, is very conducive to their health, maintaining a good appetite, and exciting the intestines into a continued good condition; these considerations, together with the saving of one third of the grain, will remunerate the pains thus taken. Nothing more will be added at present, except that the writer entertains a hope, that many of his fellow citizens will prove all these interests, by their own experience.

(From Loudon's Encyclopædia of Agriculture.)

THE CULTIVATION OF FLAX.

The flax has been cultivated from the earliest ages, and for an unknown length of time in Britian, of which it is now considered a naturalized inhabitant. It is cultivated both for its fibre for making thread, and its seed for being crushed for oil; but never has been grown in sufficient quantity for either purpose. The legislature of the country, as Brown observes, has paid more attention to framing laws regarding the husbandry of flax than to any other branch of rural economy; but it need not excite surprise that these laws, even though accompanied by premiums, have failed to induce men to act in a manner contrary to their own interest. The fact is, the culture of flax is found on the whole less profitable than the culture of corn. It is one of the most severe crops when allowed to ripen its seed; but by no means so when pulled green.

The varieties of the common flax are few, and scarcely deserving of notice. Marshal mentions the blue or lead colored flax as being cultivated in Yorkshire, and Professor Thaer mentions a finer and coarser variety; he also, as well as some other agriculturists, has tried the *Linum Perenne*, but though it affords a strong fibre, it is coarse and difficult to separate from the woody matter.

The soils most proper for flax, besides the alluvial kinds, are deep and friable loams, and such as contain a large proportion of vegetable matter in their composition. Strong clays do not answer well, nor soils of a gravelly or dry sandy nature. But whatever be the kind of soil, it ought neither to be in too poor nor in too rich a condition; because, in the latter case, the flax is apt to grow too luxuriant, and to produce a coarse sort; and, in the former case, the plant, from growing weakly, affords only a small produce.

If there be water at a small depth below the surface of the ground, it is thought by some still better, as is the case in Zealand, which is remarkable for the fineness of its flax, and where the soil is deep and rather stiff, with water almost every where, at the depth of a foot and a half or two feet underneath it. It is said to be owing to the want of this advantage, that the other provinces of Holland do not succeed equally well in the culture of this useful plant; not but that fine flax is also raised on high lands, if they have been well tilled and manured, and if the seasons are not very dry. It is remarked, in the letters of the Dublin Agricultural Society, that moist stiff soils yield much larger quantities of flax, and far better seed, than can be obtained from light lands; and that the seed secured from the former may, with proper care, be rendered full as good as any that is imported from Riga or Zealand. M. Du Hamel, however, thinks that strong land can hardly yield such fine flax as that which grows on lighter ground.

The place of flax in a rotation of crops is various, but in general it is considered as a corn or exhausting crop, when the seed is allowed to ripen; and as green, or pea, or bean crop, when the plant is pulled green. Flax, Donaldson observes, is sown after all sorts of crops, but is found to succeed best on lands lately broken up from grass. In Scotland, the most skilful cultivators of flax generally prefer lands from which one crop of grain only has been taken, after having been several years in pasture. When such lands have been limed or marled, immediately before being laid down to grass, the crop of flax seldom or never misgives, unless the season prove remarkably adverse. In the north of Ireland flax is generally sown by the small farmers after potatoes. In Belgium, it is supposed not to do well after pease or beans; nor to succeed if sown oftener on the same soil than twice in nine years.

The preparation of the soil, when grass land is intended for flax, consists in breaking it up as early in the season as possible, so that the soil may be duly mellowed by the winter frosts, and in good order for being reduced by the harrows, when the seed process is attempted. If flax is to succeed a corn crop, the like care is required to procure the aid of frost, without which the surface cannot be rendered fine enough for receiving the reed. Less frost, however, will do in the last, than in the first case; therefore, the grass land ought always to be earliest ploughed. At seed-time, harrow the land well before the seed is distributed, then cover the seed to a sufficient depth, by giving a close double tine of the harrows. Water-furrow the land, and remove any stones and roots that may remain on the surface, which finishes the seed process.

The ordinary *season of sowing flax seed* is from the middle of March to the middle or end of April, but the last week of March and the first ten days of April is esteemed the best time; and accordingly within these periods the greatest quantity of flax-seed is sown in this country. In France and Italy it is often sown in the autumn, by which a larger crop is produced, especially when seed is desired.

The quantity of seed depends on the intention of the crop. When a crop of seed is intended to be taken, thin sowing is preferable, in order that the plants may have room to throw out lateral shoots, and to obtain air in the blossoming and filling seasons. But it is a mistake to sow thin when flax is intended to be taken, for the crop then becomes coarse, and often unproductive. From eight to ten pecks per acre, is the proper quantity in the last case, but when seed is the object, six pecks will do very well. Thick-sown flax runs up in height, and produces fine soft flax; if sown thin, it does not rise so high, but spreads more and puts forth many side branches, which produce abundance of seed, and such seed is much better filled, plump, and heavy, than the seed produced from thick sown flax.

In the choice of seed, that which is of a bright brownish color, oily to the feel, and at the same time weighty, is considered the best. Linseed, imported from various countries, is employed. That brought from Holland is, however, in the highest estimation, as it not only ripens sooner than any other that is imported, but also produces greater crops, and flax of that quality which best suits the chief manufactures of the country. American seed produces, in common, fine flax, but neither the quantity of flax nor of the pods, provincially the "bolls," which contain the seeds, is so large as the produce from Dutch linseed. Riga seed yields a very coarse sort of flax, but a greater quantity of seeds than any other. It is common in some parts of Scotland to sow seeds saved from the crop of the preceding year, especially when that crop was raised from seed imported from Holland. The success of this practice is found to depend greatly on changing the seed from one sort of soil to another of an opposite nature; but the saving in the expense of purchasing that sort of seed, in place of what is newly imported from Holland, is so inconsiderable, and the risk of the crop misgiving so much greater in the one case than in the other, that those only who are ignorant of the consequences, or who are compelled from necessity, are chargeable with this act of ill-judged parsimony. Flax seed is by some farmers changed every three years; but many have sown the same seed ten years in succession without perceiving any degeneracy. When any degeneracy takes place, the seed of flax grown on a different soil, as moss, moor, sand, &c. without any view to the produce in fibre, will, it is said, answer as well as foreign seed.

The manner of sowing is almost always the same, but when seed is the main object, drilling may be adopted, by which seed will be saved in sowing, cleaning conducted at less expense, and the plants rendered more vigorous and branchy by the stirring of the soil, and the admission of air between the rows. The fibres of flax grown in this way, however, will be shorter and less equal in thickness throughout their length, than flax grown by the broad-cast mode, and tolerably thick.

The after-culture of flax consists chiefly in weeding, but sometimes it commences with rolling the surface, which is a very proper operation when the soil is very dry, the season advanced, or the earth very porous. By this process the earth is pressed firmly to the seeds, and they are thereby stimulated to vegetate sooner, and the drought is kept out. On some soils, and in wet or stormy seasons, flax is apt to be laid, to guard against which some cultivators run across their flax field slender poles fixed to stakes; but a better method is to run small ropes across the field, both lengthwise and breadthwise, where necessary, for these being fastened where they intersect one another, and supported by stakes at due distances, form a kind of net-work, which is proof against almost every accident that can happen from tempestuous weather.

In Scotland a crop of flax is sometimes weeded by turning a flock of sheep at large into the field. They will not taste the young flax plants, but they carefully search for the weeds, which they devour.

The flax crop is taken by pulling, on which there is a considerable difference of opinion. None, however, think of pulling it before it comes into flower, when fibre is the sole object; or before the seed in the capsules acquires a brownish color, when fibre and seed jointly, or seed alone, is the object. Some argue for pulling while it is green, in order that its fibres may be softer and finer: others, with the same view, pull it up before its seed are quite formed; and others again think that it should not be pulled till some of the capsules which contain the seeds have begun to open, being of opinion that the fibres of green flax are too tender, and that they fall into tow. On the other hand, it is certain the fibres of flax which has stood till it is very ripe, are always stiff and harsh, that they are not easily separated from the reed, and that they do not bleach well. Here, therefore, as in most other cases, both extremes should be avoided, and it consequently seems most reasonable to think that the properest time for pulling flax, is when its stalks begin to turn from a green to a yellow, when its leaves begin to fall, and when its seeds begin to be brown. Donaldson observes, that a crop of flax frequently grows short, and runs out a great number of seed-bearing branches. When that is the case, the seeds, not the flax, ought to be the farmer's chief object, and the crop should be allowed to stand till the seeds are in a great measure perfected. But that when the crop thrives, and is likely to become more valuable for the flax than the seeds, it should be pulled soon after the bloom drops off, and before the pods turn hard and sharp in the points. When flax is grown for its fibre, Brown considers it the safest course to take it a little early, any thing wanting in quantity, being, in this way, mady up by the superiority of quality.

The operation of pulling flax differs according to the intention of the crop. When it is grown for the fibre it is pulled and tied immediately into sheaves like corn, being carried off immediately to be watered. But when the seed is to be taken from the plant, it is pulled and laid in handfuls.

In pulling flax, it is usual, when it is intended to save the seeds, to lay it in handfuls, partly across each other; the reason for which is, that the business of rippling is thereby facilitated, as the riplers, in place of having to separate each handful from the bundle, find it by this simple precaution already done to their hand. Although it is of much importance, yet it very seldom happens, that much attention is bestowed to separate the different sorts of flax from each other, in pulling the crop. In most fields, there are varieties of soils; of course some parts of a field will produce fine flax, others coarse; some long; and some short: in a word, crops of different lengths and qualities. It cannot be supposed that all these sorts of flax will undergo an equal degree of watering, grassing, breaking, and hackling, without sustaining great injury.

As the flax is pulled, it is laid together by handfuls, with the seed end turned to the south. These handfuls should neither lie quite in a line with each other, nor directly across, but a little slanting upwards so that the air may easily pass through them. Some, instead of this method, tie the handfuls of flax loosely at the top, then spread out their roots, and thus set several of them together upright upon their roots. In either of these ways, the flax is generally left twelve or fourteen days in the field to dry it. This drying is certainly not necessary for the rippling, because the ripple will separate the capsules from the flax as effectually before it has been dried as it will afterwards; and if it be done with a view to ripen the seed, it should be considered, that the flax will be more hurt by the longer time of steeping, which will become necessary in consequence of this drying, than the seed can be benefited; because, the more the membrane which connects the fibres to the reed is dried, the greater must be the degree of putrefaction necessary to loosen and destroy the cohesion of this connecting membrane; the finer parts of the flax itself must necessarily be destroyed by this degree of putrefaction; and if the putrefaction does not arise to such a degree as to destroy the cohesion of this membrane, the fibres of the flax will adhere so strongly to the reed, that the force necessary in scutching will prove equally detrimental to the flax. The practice adopted in some parts of Britany seems therefore much more rational, which is, to ripple the flax after it has lain in the air two or three days; but even one day will be sufficient, if the weather is dry.

In the process of rippling, which is the next operation, a large cloth should be spread on a convenient spot of ground, with the ripple placed in the middle of it. In performing this business, the pods containing the seeds are forced from the stalks by means of the iron comb called a ripple, fixed on a beam of wood, on the ends of which two persons sit, who, by pulling the seed end of the flax repeatedly through this comb, execute the operation in a very complete manner. It is remarked by the author of *the present state of husbandry in Great Britain,* that "those who bestow much attention on the cultivation of flax in Scotland generally ripple off the seed, even when there is no intention of saving it; as it is found, when flax is put into water without taking off the pods, the water soon becomes putrid, in consequence of which the flax is greatly injured.

The management of the capsules and separation of the seed, is the next operation. The capsules obtained should be spread in the sun to dry, and those which separate from the pods of their own accord being the fullest and ripest, should be set apart for sowing, in case the precaution of raising some flax purposely for seed has not been attented to. The capsules are then broken, either by treading or by threshing, in order to get out the remaining seeds, the whole of which, as well as the former, should be carefully sifted, winnowed and cleaned. When the seed is laid up, it must be frequently stirred, or ventilated, to prevent its heating. Even this second seed affords a considerable profit by the oil which it yields, and also by being used when broken for fattening of cattle.

(To be continued.)

MALAGA WHEAT, &c.

We are indebted to our representative in congress, R. H. Wilde, Esq. for samples of wheat from Malaga, called the *Trigo Recio,* grown about Ronda, north of Gibraltar, and which may be obtained at our news room by those of our friends who may desire to try it. Mr. W. has also been promised some plants of the sugar cane cultivated in Murcia, which will be forwarded in March next. Of the wheat, the correspondents of Mr. W. (Bernard Henry, Esq. of Gibraltar and Messrs. G. and W. A. Reid, of Malaga,) say, it is a hardy plant, which most resists all the injuries to which grain is in general liable, either in the field or in our granary, and is not subject to rust, at least in that climate. It is a full, heavy, rich colored grain, and produces a brilliant white flour: but the objection made to it by the millers of England is the very great difficulty of grinding it.—Samples have before been sent to the United States; but how they have succeeded is not known.

We cordially agree with the Intelligencer in the remark that Mr. Wilde "is entitled to the public thanks for his patriotic efforts to introduce into the cultivation of his own country the valuable productions of foreign climes. Such efforts are not only commendable for the immediate good they produce, but are valuable as examples to other gentlemen, who may be in situations to render similar benefits to their country. [*Sav. Georgian.*

M. Busching, a Prussian horticulturist, having planted in April the seeds of eight varieties of potatoes, which he kept carefully watered until June, then transplanted 500 at distances of a foot and a half from each other; in the month of August most of these plants were in fruit and flower, and the varieties extended to 130; they ripened at four different periods, and all produced abundantly. M. Chevallier, in a letter to the *Bulletin Universel,* referring to a proposal in that work for the growth of potatoes in houses, by planting them in tubs, relates several experiments which he had performed, and of which the result was very unsatisfactory.

Botanists have enumerated about 500 varieties of grass, and have specified the numbers selected by different graminivorous animals. Of horses, sheep, and oxen, it would appear that the first of these species are the nicest in their choice, the horse eating of 262 and leaving 212.—*Crombie's Natural Theology.*

HORTICULTURE.

(From the Baltimore Gazette.)

CULTIVATION OF SILK.

The Mulberry.

The first object of attention to a person contemplating the culture of silk, is to secure an abundant and convenient supply of mulberry leaves, without which he, of course, can do nothing. The supply must be abundant, that he may not from any cause be obliged to stint the worms, at a moment when his whole crop depends upon a full and free supply of food, which is during the last ten days of their feeding; and it must be convenient, that the expense of attendants for gathering leaves may be as small as possible. There are many accidents that may cause the loss of leaves; during a spell of wet weather it is necessary to gather a supply for a day or two a-head, that they may be dried before feeding them to the worms; these may become spoiled, and thus lost. Therefore, if we intend to keep worms enough to consume the leaves of one hundred trees, we should always have 150 or 200 trees, and this will be no loss to the proprietor, as ultimately, he will find his account in not robbing the trees of their foliage too much, and he will thus be able to favor them in this respect, should he meet with no loss of leaves. It will also be advisable, always to have a nursery of young trees for transplanting, to fill vacancies occasioned either by decay or accident in his orchard. In general it may be calculated that a full grown tree will furnish leaves for 5000 worms; therefore, a pretty close estimate may be formed of the number wanted. They will require about one third more room than apple trees.

There are several modes of propagating mulberry trees, viz: by *seed, cuttings, shoots* and *grafts.* The two first I consider the most eligible for this country, though the third is by no means to be rejected where available; for shoots will make tolerable trees. I consider the value of the several modes to be very different, and have set them down in the order in which I estimate them. The seed plant is undoubtedly best, both for food, for worms and duration; it is also most convenient, for seed enough can be sent by mail to any part of the union to produce an orchard sufficient to feed several millions of worms. Cuttings, in one respect are preferable to seed. They generally save one year in maturing the orchard, but in all other respects they are inferior to seed. It is agreed among horticulturists, that trees propagated by cuttings or shoots, are not as long lived as those from seed. Cuttings and shoots are difficult of transportation, compared with seed.—This is the greatest objection. It is unnecessary to dwell on this part of the subject, however, as *convenience* is more worthy of consideration than any thing else; and therefore the mode most convenient will of course be adopted.

The kind of mulberry most suitable for silk worms has been a subject of much dispute in this country, *but in no other.* Many persons have tried the native red mulberry, and concluded that it was equal if not superior to the foreign white. But having tried both several times, I am obliged to adopt a different conclusion. The silk produced from them was sufficiently strong, but it did not possess that fineness of fibre and richness of gloss that the product of the white mulberry did. As it requires the same labour and expense to propagate the one as the other, therefore, I think the white should always be preferred. There are numerous varieties of white mulberry, any of which are better than the native, and some of which are better than others. The white mulberry is a tree, *not* "known by its fruit." Some varieties bear *black,* some *red,* some *white,* and others *purple* fruit. There is a tree in the garrison at Annapolis, which bears black fruit, the foliage of which is decidedly preferable to that of any other I have seen, for silk worms. There is also a tree about five miles from Annapolis that bears both *white and black* fruit promiscuously; a black berry and a white one occupy the same fruit stem. The general distinctive feature of the varieties of mulberry trees is the leaf. I need not describe the *native*, for it is sufficiently known. The white has a leaf resembling in some respects that of the poplar—glossy on its upper surface, free from down on its lower, firm texture, and serrated edge. In shoots and young trees the leaf is often beautifully lobed.

To propagate the white mulberry, one ounce of good seed may be obtained. If all these seed vegetate, they will produce about 8000 trees. As, however, there is much more *bad seed* for sale than good, care must be taken in selecting it.—Nine tenths of the seed sold in the United States, is either old, or worthless from some other cause, the most common of which is its being gathered before perfectly ripe. The test of good seed in Europe, is by no means infallible. They put it into cold water, condemning that which floats, and approving that which sinks. In the case of immature seed, this test fails, for if tried while fresh, it is just as heavy as mature seed; and if the seed be old it fails also, for the specific gravity of old dry seed is less than that of water, and consequently it will float; when at the same time a great part of it will vegetate. If, however, the seed be soaked in *hot water* a few hours, what is really good will sink, and the worthless will continue to float; and it may thus be tested, for the good seed alone will swell and sink to the bottom,—whether the bad seed be so from age, premature gathering, or any other cause.

The seed should be planted in a bed, prepared as for lettuce or any other small seed, in a rich, warm soil, where in dry times it will not suffer from drought. It may be sown in drills like lettuce or radishes, and covered ¼ or a ½ inch deep with fine mould, as early in the spring as the ground and weather will permit; it will come up in 10 or 15 days. The weeds must be carefully destroyed, and in dry times frequent watering will be highly beneficial. Previous to planting, the seed should be soaked in hot water (not boiling) three or four hours, and then rolled in fine brickdust, or plaister of paris. The trees will be fit for transplanting into nurseries in the fall, in the middle and southern states, and early the next spring in the north. I have some trees, grown from seed planted last spring, (1829,) that are now five feet high, and three quarters of an inch diameter at the but-end. Some recommend the summer, when the fruit is ripe, for planting the seed; but I think the spring the best time. After standing in the nursery two years, they may be transplanted into orchards, as other trees are planted, where they are to remain, and leaves may be taken from them after being there one year. I prefer transplanting in the fall, as the small fibrous roots which convey nourishment to the tree, have time to prepare for their functions by the vegetating season next spring. In all cases of transplanting trees, great care should bo taken to preserve these very fine roots. The young trees should be pruned as other trees are, when intended for the orchard. If hedges for fences be wanted, the young trees may be taken immediately from the seed bed to the hedge row. The white mulberry forms an excellent live fence, and when once established is probably the most permanent of any other. The more it is broken and lacerated by cattle the more impenetrable it will become; for, for every branch broken, a half a dozen shoots will immediately start out, till the bush forms a perfect bramble.* This mode is therefore recommended as accomplishing three important objects—supplying food for silk worms, keeping the trees low that the leaves may be gathered from the ground, and furnishing a good and almost never-ending fence. In transplanting young trees for hedges, they should not be pruned; but the second year, or at least the third, the tops should be cut off, and the side branches trained laterally with the hedge, by interweaving them.

Cuttings may be taken at any time after the fall of the leaf and before the swelling of the buds in spring. They should be those shoots on the limbs of the tree of the last summer's growth that grow perpendicularly, taken carefully off with a saw, including as much of the protuberance of old wood at their base as possible. They may be put in the ground immediately, or kept in dry sand in a dark cellar till the opening of the spring. They will generally be from two to four feet in length, and should be set in an inclined position, about one foot in the ground. In the fall or next spring they may be transplanted into nurseries, and thence treated as seedlings. Suckers may be treated like young trees, as they generally have root enough to sustain them.

Grafting will never be followed in this country, as it is unnecessary for the silk culture, although it is generally practised in Italy; while at the same time Dandolo confesses that the leaves are not so suitable for silk worms as those from seedling trees.

The situation and soil for a mulberry orchard require no other attention than the choice of high ground—that is, a site neither marshy nor bottom land. Although the mulberry requires a warm rich soil for the first year, it is perfectly indifferent as to soil forever afterwards. I have seen the tree in every variety of soil from the poorest to the richest, and have been able to observe no other difference in its foliage than a more firm texture in that on poor land than in that on rich; and this makes a dry stony or even sandy soil preferable to a rich one.

As mulberry seed is getting to be an important article, it is deemed appropriate to give directions here for saving it; and particularly so, as there are hundreds of pounds of it lost every year, in Maryland and Virginia, that might easily be made to supply the place of imported seed. In the neighbourhood of Annapolis, a large quantity might be saved annually. When the fruit begins to ripen, every morning the tree should be shaken, and the fruit that falls gathered with that which had fallen before. If enough is not gathered in one morning, several successive gatherings may be collected; but the fruit should not be kept over three or four days, before the seed is extracted; which may be done in the following manner:—Put the fruit into a tub and press and mash it till the berries are completely worked into a common mass. Then pour water into it and stir it briskly, that the pulp may be separated from the seed. Then pour off the water, with all the seed that floats, (as it is worthless,) and renew the washing, till the seed is clean, when it should be drained, spread out on cloths, and dried in the shade. When perfectly dry, it should be put into a tight keg, or other vessel, and kept in a dry place. It should never be exposed to the *light, air, or dampness,* more than is absolutely necessary. The mulberry seed that is *really good, is worth its weight in silver,* as Messrs. Landreth of Philadelphia, sell it by retail, at *a dollar an ounce,* and I take pleasure in recommending their seed as worthy of more confidence than any I have tried. Others, indeed, sell it much lower, some at four dollars a pound, but after *throwing away the cost of four pounds of it,* I am disposed to believe, that *one ounce* of Landreth's seed is worth more than a pound of the other, at least such as I have tried. White mulberry seed are of an obtuse triangular shape dull, dark yellow color, and very full of oil.

Of tho mulberry tree it may be remarked, that there is scarcely any other so tenacious of life.—The coldest weather seems not to affect it, while all attempts to destroy it, when once fairly taken root, by grubbing it up, prove unavailing. Old trees have been cut down twenty or thirty years ago, and yet the old roots continue to throw up numerous shoots every spring, to the great annoyance of the tidy farmer. The young seedling of six months has a root almost equal to the top, and therefore possesses a great advantage over other trees, for it can be set so firmly in the ground as to be secure from injury by the wind, and obviates the necessity of close pruning. When four years old, it is safe to gather the leaves, which should be done sparingly at first, taking a few from each branch, till the tree has nearly attained its full size; it may then be stripped of two thirds its foliage without injury. Indeed, I have stripped the tree entirely, and the next year it seemed to have a double quantity of foliage, in consequence of the numerous shoots produced by the excessive robbery. The white mulberry always puts out a second crop of foliage after being thus stripped, so that in the fall it exhibits little indication of the robbery in the summer. It is, however, better to economise in gathering the foliage, for the vigour of the tree will undoubtedly ultimately yield to continued excessive deprivation of leaves. Care should always be taken to destroy caterpillars at their first appearance in the spring, otherwise great loss of foliage will be sustained. They are easily destroyed when they first appear; but no efforts are sufficient after a few weeks quiet possession. When first discovered the small branch containing the nest should be taken off and burnt; and the work is done.

Gideon B. Smith.

(From a late London paper.)

A letter from a Market Gardener to the Secretary of the Horticultural Society.

"*Sir,*—The satiety having bean pleased to complement me before I beg leaf to lie before them agin as follow in particullers witch I hop they will luck upon with a sowth aspic.

"Sir—last year I paid my attention to a tater and the satiety was pleased to be gratified at the innlarement of my kidnis. This car I have turned my eyes to gozberries—I am happy to say I have allmost sucksidid in making them too big for bottlin. I beg to present sum of itch kind—pleas obsarve a green goose is larger in siz then a red goosebry. Sir as to cherris my atention has bean cheafly occupid by the black arts. Sum of them are as big as crickt balls as will be seen. I send a sample tyed on a wauking-stick. I send lickwise a potle of stray berris which I hop will reach. They are so large as to object to lay more nor two in a bed. Also a potle of hobbies and one of my new pins, of a remarkably sharp flaviour. I hop they will cum to hand in time to be at your feat. Respective black red and white currency I have growd equely large, so as one bunch is not to be put into a galley pot without jamming. My pitches has not ben strong, and their is no show on my walls of the plumb line. Damsins will be moor plentifle and their is no want of common bullies about Lunnon. Please inform if propper to classify the slow with the creepers.

"Concerning graps I have bin recommanded by mixing wines with water mellons, the later is improved in its juice—but have doubts of the fack. Of the Patgonian pickleing coucumber, I hav maid trial of, and have hops of growing one up to markit by sitting one end agin my front dore. On account of its progressiveness, I propos calling it pickleus perriginatus if aproved of.

"Sir, about improving the common stocks.—Of haws I have some hops but am disponding about my hyps. I have quite faled in cultivating them into cramberris. I have allso atempted to mull blackeris, but am satisfied them and the mulberris is of diferent genius. Pleas observe of aples I have found a grafft of the common crab from its straglin sideways of use to hispalliers. I should lick to be infourmed weather Scotch granite is a variety of the pom granite and weather as sum say so pore a frute, and nothing but stone.

"Sir,—My Engine corn has been all eat up by the burds namely rocks and ravines. In like manner I had a full shew of pees but was distroyed by the sparrers. There as bean grate mischef dun beside by entymollogy—in some parts a complete patch of blight. Their as bean a grate deal too of robin by boys and men picking and stealing but their as bean so many axidents by steel traps I don't like setting on 'em.

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* It is not meant, that cattle may be allowed free access to the hedge *while young*, as they would destroy it altogether; but that after it has become a good fence, they may be allowed to approach it with advantage.

"Sir I partickly wish the satiety to be called to considder the case what follows, as I think mite be maid transaxtionable in the next reports:—

"My wif had a tomb cat that dyd. Being a torture shell and a grate faverite, we had him berrid in the guardian, and for the sake of inrichment of the mould I had the carks deposeted under the roots of a gosberry bush. The frute being up till then of the smooth kind. But the next seson's frute after the cat was berrid, the gozberris was all hairy.—& moor remarkable the catpilers of the same bush, was all of the same hairy discription.

"I am Sir your humble servant,
"Thomas Frost."

(From the Albany Argus.)

FOREIGN SEEDS.

A strange predilection for European seeds seems to prevail, for which I can assign no reasonable cause. The remark applies particularly to garden seeds. I was under the influence of this infatuation myself, until repeated disappointments cured me of my folly, and led me to reflect upon the comparative value of American and foreign seeds. My reflections led to these results:

1. That the American climate is better adapted to mature seeds than that of Britain, from whence they are generally imported, with the exception, perhaps, of those belonging to the brassica or cabbage family.

2. That we are more liable to be imposed upon in the purchase of foreign than of native seeds. The American seedsman has a character at stake, and is liable to be merced in damages, if he sells bad seeds or those that are not genuine.—The foreigner who sells seeds to us is but little affected by either of the considerations.

3. Foreign seeds, if fresh when shipped, which, for the reasons just mentioned is not always the case, are very liable to be damaged, and the germinating principle destroyed by the heat and moisture of the vessel in which they are brought across the Atlantic.

Neither the melon, cucumber, kidney bean, nor many of the finer annual flowers, such as balsams, coxcombs, marygolds, &c. ripen their seeds in the open ground in England. Why then prefer these immature productions to the seeds which our climate ripens in high perfection? Why not encourage the home industry of the gardener as well as of the manufacturer? I ask those who have made the experiment, have a quarter of the flower and other small seeds, "imported from London," ever grown under your care?

Composition for Washing the Branches of Fruit Trees.

Mix one pound of flour of brimstone in three gallons of gas water, adding soft soap sufficient to make the liquid adhere to the buds and branches. The mixture is made over the fire without danger. It is applied in the month of March, and has been used under glass on the most delicate trees, without doing them any injury. A considerable number of trees may be completely washed in one day by a single person.

It is stated in the annals of the Horticultural Society of Paris, that the white maize of China, although it produces a smaller grain than the maize of Pennsylvania, which has been hitherto much cultivated in France, yields more abundantly, and gives a much finer flour. Some Chinese maize, sown in the south of France during the present year, is stated to have turned out very well, notwithstanding the badness of the season. [*Literary Gazette.*

Bear and blame not what you cannot change.

PRESERVATION OF SEEDS.

M. D'Arcet has preserved corn, which has been infested by weevils, for a considerable time, by putting it into vessels previously filled with sulphurous acid. All the weevils perished, and the corn ceased to suffer. In this manner insects in seeds may not only be destroyed, but their presence prevented. As it might be inconvenient to burn sulphur in the vessels to be filled with sulphurous acid, we will indicate another method of replacing the acid, and obtaining the same results. All that is necessary is to powder the seeds well with flowers of sulphur, before they are put into the bottles or other vessels; or, after having put the seeds into a bottle, the sulphur may be added, and the whole well shaken together, so as to bring it into contact with all the seeds.—The presence of the sulphur will prevent entirely the attacks of insects.—*Journ. des Connais. Usuelles*, 1829, lxviii.

It is stated, in a letter from Marseilles, that most of the Corinth grape (currant) trees, of which 12,000 were received in April last, are now in a thriving state in the different departments in which they were distributed; and that no doubt is entertained that the Corinth vine will produce abundantly in the south of France. We understand that it is intended to try this vine in the new colony at Swan river.

The manufacture of sugar from beet-roots is still making way rapidly in France, with almost daily improvements. A manufacturer near Paris has taken out a patent, by which he undertakes to diminish the time hitherto required for completing the process at least one third.

Depend not on fortune, but conduct.

RURAL ECONOMY.

English Norfolk County Turkeys.

Owing to the dryness of the soil, *poultry* of all kinds are plentiful, and of a superior quality. *Turkeys* in particular, are very numerous, and the mode of feeding them, gives a delicacy of *flavour*, which stamps pre-eminence on the *Norfolk Turkey;* the consumption of these birds is great, both in this and the adjacent districts; yet such is the abundance, that immense quantities are sent to various and remote parts of the kingdom. It has been computed, that more *turkeys* are bred in this, and the adjoining county of *Suffolk* than in all *England* beside. They are commonly driven on foot, in large flocks, to *London*, and other distant places. During *one* season upwards of *three hundred* of these flocks, of *some hundreds each*, have been noticed to pass *Stratford* bridge, on the river *Stour*, in their way to the *Metropolis*; besides what proceeded by *different routes*, to the same market.

Much has been said respecting the difficulty of rearing *turkeys*, it seems, however, that a little care when *first hatched*, soon places them beyond the reach of danger, and produces ample profit. A lady at *Moulton* in *Norfolk*, in 1809, netted of the produce of *one hen turkey, twelve guineas.*—Another instance of their value occurred at Mr. *Guy's*, Battle bridge, near *Rayleigh* in Essex. In the spring of 1808, some *Guinea* hens' eggs, were sent him as a present, and to obtain a stock of that sort of fowl; amongst them, was a *turkey* egg, which produced a *hen* bird. One of his children requested this bird might be given to her, and some *turkey* eggs procured, to try her fortune with, the *turkey* was set upon sixteen eggs, produced the same number of birds, and what was more singular, they were all *cocks*, they were reared without any casualty, and sold for *fifteen shillings* each, so that the youngster's gains from that *one brood*, was *twelve pounds*.

A circumstance relating to a bird of this species, proves that the *race*, mentioned by the famous *Barnaby Harrison*, in the following couplets,

"To *Banbury* came I, O prophane one,
Where I saw a Puritane-one
Hanging of his *Cat* on *Monday*,
For killing of a *Mouse* on *Sunday*,"

is not yet *extinct.*—A *turkey* cock, the property of a reverend divine, in the northwest part of Yorkshire, strayed from his constant mate, and paid his devoirs to a female in a neighhouring farm-yard; complaint having been made of this transgression, the reverend owner ordered the sinner to be slain, and entombed, *feathers and all*, declaring that not a *remnant* of so flagitious an offender should be seen about *his* house; the order was accordingly executed, but at night, the newly-created sexton, a resurrection man, we presume, *raised the dead*, and the day following, regaled himself and his family on the *delinquent* turkey!

In *Ireland, turkeys* are in abundance, so much so, that in the county of *Cork* there is a *fair* kept for the sale of *turkeys*. The warmth of the *cabins*, into which the *fowls* are always admitted, is exceedingly favourable to their increase, it renders them more prolific in eggs, and the young, by sharing in the habitation of the family, can be reared with much greater ease. [*Daniel's Rural Sports.*

LADIES' DEPARTMENT.

(From the Journal of Health.)

TIGHT SHOES.

Whoever would regard their feelings, in as far as their feet are concerned, and it is a point of no little personal comfort, must carefully attend to the choice of their shoes. It happens too often that people consult a ridiculous pride in preference to their ease. The ladies in particular are most apt to fall into this singular error. By a desire to rectify, what fashion has pronounced an error in nature—a foot proportioned in size and adapted in shape to the body it is formed to support, and the uses it is destined to fulfil—they force their feet into shoes considerably curtailed of their just proportions, as well in length as in breadth. If no evil consequences arose from this kind of ignorance and specious vanity, it might be passed over with a smile—but those which invariably result from it, force us to place it among the compliances with the whims of fashion, against which the young in particular should be seriously admonished.

Shoes of too restricted dimensions distort and blister the feet, and produce, invariably, those small but painful excrescences denominated corns. Nine women in ten, upon the most reasonable calculation, before the age of twenty-four, have, to a certain extent, deformed and suffering feet from this cause alone. Such individuals, also, as adopt this unnatural practice of forcing their feet like a wedge, into a tight pair of shoes, are uniformly bad and ungraceful walkers—the spring and elasticity of their feet is lost, and their gait is ever afterwards cramped and hobbling.

They who would avoid these unseemly and painful defects, must remain satisfied with the original conformation of their foot, and wear shoes corresponding to its shape—and answering in every respect to its bulk. In purchasing shoes ready made, or professing to be made to measure, let them, if in the least degree too tight, be stretched upon the last—and not upon the feet. The shoe must be made to the foot—and not the foot to the shoe. These remarks are equally true, in reference to the shoes and boots of men—as to those worn by females.

Soldiers, and those who travel on foot, or walk much, should provide themselves with shoes that fit exactly—having the upper leather perfectly soft. Their stockings ought to be plain and soft, and should be frequently changed and washed. Persons whose feet perspire freely, should bathe them often, particularly in summer—and during the latter season should wear thread or cotton stockings, which it is necessary for them to change more frequently than others, whose feet are habitually dry.

(From the Journal of Health)

TRANQUILLITY OF MIND.

"*Optandum ut sit mens sana in corpore sano,*" saith the Roman satirist, which maxim may be paraphrased in the words of another poet:

> "Tis the great art of life to manage well
> The restless mind."

These maxims are most strictly true. It is of the highest importance to health, to preserve the tranquillity of the mind, and not to sink under the disappointments of life, or give way to the turbulence of the passions; for nothing injures more the nervous system, and more effectually impairs the digestive powers of the stomach, than the influence of the various mental affections, such as fear, grief, anxiety, disappointment, anger, despair, rage or any other violent passion, whether sudden, or attended by protracted painful sensations. When they become vehement and immoderate, they disorder the body in various ways—chiefly by their impression upon the nervous system, and by their accelerating or retarding the circulation of the blood, and the various secretions.

From the influence of the passions upon the system, when they are allowed to escape from under the control of reason, a large proportion of the most dreaded diseases to which human nature is subject, originate. They increase, also, the malignity of disease, change its ordinary course, and aggravate it by a thousand incidental evils. During the prevalence of epidemies, they augment, in a very considerable degree, the susceptibility to an attack.

But, while the indulgence of the passions injures, in various ways, the health both of the body and the mind, a calm, contented, cheerful disposition, is invariably a fruitful source of health. Looking at the favorable side of things, as father Paul has it, causeth, "our little to prosper;" and, independent of the other advantages afforded by equanimity of temper, we are assured, by Lord Bacon, that "a cheerful tone of mind helps digestion more than is imagined:" and all are aware of the saying of the wise king, "a merry heart doeth good like a medicine, but a broken spirit drieth the bones."—The stimulus of the joyous and gently exciting passions, in suspending the incipient symptoms of various diseases, is often almost miraculous—while, during the course of a severe and protracted complaint, a favorable or unfavorable issue is often mainly determined by the nature of the mental emotions indulged in by the patient.

For the due preservation and enjoyment of health, "observe fair play between cares and pastimes—increase all your natural and healthy enjoyments—cultivate your evening fire-side, or domestic circle—the society of your friends—the company of agreeable children—music and amusing books—an urbane and a generous gallantry. He who thinks any innocent pastime foolish, (none but the innocent can be healthy) has yet either to grow wise, or is past it. In the one case, his notion of being childish, is itself a childish notion. In the other, his importance is of so feeble and hollow a cast, that he durst not move for fear of tumbling to pieces." This is doctrine agreeable to reason, and has received the sanction of the best and wisest men.—Neither Scipio Lælius, nor the Grand Pontiff Scævola, thought it beneath their dignity to play at ducks and drakes by the water side, for their amusement.

MISCELLANEOUS.

CURIOUS NOTICES.

MR. EDITOR:

Your correspondent in the last number of the American Farmer might have added, to his curious advertisements, the following sample of town and country epistolary intelligence. The following is the transcript of a letter actually sent to the mistress of a boarding-school, near town, by the father of one of the female boarders:—"As I ad a good hedication myself, I am hintirely ashamed for to see wat manor that Lucy his bitt by the *buggs*, and it is my desire for hur to sleep in the bedd that she alway do, and not for to sleep sum time in wun and then in annuther, for to feed all the *buggs* in the ouse, for I think that be not right; neither shal she do it. So I remane, yures, &c." And a respectable druggist at *Blackburn* received the following curious epistle:—"Will you send me help for babey that is 9 weeks of age it is greatly fulfild with a cough and if it please your honour sir will you right it down how it must be-taken."

In *Norfolk*, an almost countless scope of abilities, collected in one human being, is thus modestly exhibited in *verse*, in Barrack street, in the city of *Norwich*.

> House paintings—rags and pickings bought—
> Hogs killed—and hornpipe dancing taught—
> Small beer—and *Godfrey's* Cordial—yeast
> Sold here—and teeth with ease displac'd.
> The Itch—and something more in fashion—
> Both cured without examination.
> Corns cut—kibes cured—shoes made with list—
> And leather breeches clean'd and dress'd—
> Bricklaying jobs—and bleeding done—
> By *Marshall Purland*, No. 1.

SALE OF THE MINERAL LANDS IN MISSOURI.

By the President of the United States.

In pursuance of the Act of Congress, approved on the third day of March, 1829, entitled "*An Act to authorize the President of the United States to cause the reserved Lead Mines in the State of Missouri, to be exposed to public sale, and for other purposes,*" I, ANDREW JACKSON, President of the United States, do hereby declare and make known, that a public sale will be held at the land office, at *St. Louis*, in the state of Missouri, on the *first Monday in October, one thousand eight hundred and thirty*, for the sale of such of the lands heretofore reserved on account of containing lead mineral, and unclaimed by individuals, as are situated in the following townships, viz:

NORTH *of the Base Line, and* WEST *of the Meridian Line.*

Townships *thirty-eight, thirty-nine, forty, forty-one,* and *forty-two,* of Range *one.*

Townships *thirty-nine* and *forty,* of Range *two.*

NORTH *of the Base Line, and* EAST *of the Meridian Line.*

Townships *thirty-eight, thirty-nine, forty,* and *forty-one,* of Range *one.*

Townships *thirty-eight, thirty-nine, forty,* and *forty-one,* of Range *two.*

Townships *thirty-eight, thirty-nine,* and *forty,* of Range *three.*

Townships *thirty-eight, thirty-nine, forty-one,* and *forty-three,* of Range *four.*

Townships *thirty-eight, thirty-nine, forty-one, forty-two,* and *forty-four,* of Range *five.*

The Mineral District of Missouri, comprising parts of the counties of Washington, St. Genevieve, Jefferson, St. Francis, and Madison, extends from the head waters of the St. Francis, to the Merimac river, a distance of about seventy miles in length, and from the Mississippi, in a southwesterly direction, a distance of about fifty miles in breadth, and abounds with minerals of various descriptions, but is particularly characterized by the abundance and richness of its lead ore. Iron, manganese, zinc, antimony, arsenic, plumbago, and other minerals of minor importance, are also to be found in this district.

The Townships above designated, embrace a portion of this district, and include about sixty leases granted by the government for the purpose of procuring lead ore, some of which have produced from six to eight hundred thousand pounds of mineral; and they also include some of the most productive mines in the state, either claimed by individuals, or belonging to the United States; among others, the very rich ones known as "Mine Shibboleth," "Mine a Martin," "Gray's Mines," "Bellfontaine Mines," "Valle's Mines," and the "Old Mines." The ore is of the finest quality, and yields from fifty to seventy-five per cent. Labor is abundant and reasonable. Two shot factories are established, and situations are afforded by the high rock bluffs on the Mississippi, for erecting others at the expense of about fifteen hundred dollars. Steamboats pass the lead depots daily, to and from New-Orleans, the towns on the Ohio, Cumberland, and Tennessee rivers and St. Louis; and freight to New-Orleans may be obtained for about 37½ cents per 100 pounds.

The country is remarkably healthy, is well watered, and timbered with pine, sycamore, hackberry, cottonwood, sugar maple, &c. and contains many farms now under cultivation, good farming land being interspersed throughout the district. The predominating rock is limestone, of several varieties, and a beautiful pure white sandstone, admirably adapted to glass manufacture, is abundant, as is also the very best clay. The mineral lands are from 12 to 50 miles from the Mississippi; good roads extend through the country; saw and grist mills have been erected, and water power being common in all parts of the district, facilities are thereby afforded for the establishment of manufactories for rolling lead, and for other purposes.

The Townships will be offered in the order above designated, beginning with the lowest sectional number in each, and the lands reserved by law, for the use of schools or for other purposes, will be excluded from the sale.

Given under my hand, at the City of Washington, the 23d day of March, 1830.

ANDREW JACKSON.

By the President:
GEORGE GRAHAM,
Commissioner of the General Land Office.

(From the Western Star.)

NATURAL HISTORY.

Being literally a backwoodsman and in those days when learning and books were rare things, I was far advanced in years before I ever heard the name *natural history,* so far from having been acquainted with the science. But in my wanderings I have made many observations that will not I presume, be unworthy the notice of those who are better informed on those subjects. From the Delaware to the Missouri, (in which space my peregrinations have been principally confined,) some forty years ago, every spring and fall, vast numbers of wild geese, and even swans were seen passing from north to south, and vice versa, for two weeks at least, and I think a much longer time. Scarce a day passed without perceiving one or more flocks of them on their flight. I have made a rough estimate of the number that must have passed in one season. From the Delaware to the mouth of the Missouri is about 8 hundred miles. Now suppose at each mile's distance four flocks of 25 each should have passed in every twenty four hours for the space of two weeks. The number will amount to one million and upwards. The question is, what has become of those vast numbers of water fowls? have they become extinct, or have they taken another direction?—Or, since the settlement of the country, do they take their flight so high as to evade the sight of man? These are questions that I think worthy of the attention of amatuers, and those who are skilled in the natural history of these birds. While on this subject, I will also remark, that others of the feathered tribe, once numerous have totally disappeared. The ivory-bill woodcock, the paroquet, a diminutive parrot, and the black winged red bird, the latter one of the most beautiful and delicate birds that nature ever produced.—These, especially the two former, were, within my memory, common from Pittsburg to the Mississippi. Now they are rarely if ever to be seen until you approach the waters of that river.

I sincerely hope that you or some of your more learned correspondents will spend a passing note on these subjects, for the information and entertainment of the public in general and in particular of SENEX.

(Items from late English papers.)

The excessive cold of which we have lately complained is a spring temperature compared with that of the arctic regions in which our gallant countryman Ross is now, we trust, successfully employed; for during the sojourn of Captain Parry at Winter Island, the thermometer for months never indicated a higher temperature than 17½°, was frequently at 50°, and once at 55° below zero, and that too, during a night which lasted nearly three months. It is amid such scenes, such a temperature, that our sailors under Captain Ross are now, perhaps employed in their steamer. We are not, however, without our sanguine hopes, that whilst we are now writing they may have effected their passage around the north coast of America, and by Behring's Straits, have visited the grave of Clerke, the companion and successor of Cook. The report of the whale fishermen is decidedly favourable,—they never remember the sea so clear of ice as it has been this summer, or the weather so warm. We think too, that a steamer presents facilities in those dreary seas of which no former explorer had the advantage; and though we could have wished the vessel employed by Ross to have been of greater speed, yet still the power which he now possesses of going fearlessly into bays, and amid floating islands of ice, without dread of being becalmed; is one never possessed by any former navigator. [*Mag. of Literature.*

The King of Timbuctoo has 500 or 600 horses He frequently hunts the antelope, wild ass, ostrich, and an animal which appears to be the wild cow of Africa. The wild ass is very fleet, and when closely pursued kicks back the earth and the sand in the eyes of his pursuers. They have the finest greyhounds in the world, with which they hunt only the antelope; for the dogs are not able to overtake the ostrich. Any person may accompany the King in hunting. Sometimes he does not return for three or four days: he sets out always after sunrise. Whatever is killed in the chase is divided amongst the strangers and other company present; but those animals which are taken alive are sent to the King's palace. He goes to hunt towards the desert; and does not begin till distant ten miles from the town. The antelopes are found in herds of from thirty to sixty. The ostriches, like the storks, place sentinels upon the watch; thirty yards are reckoned a distance for a secure shot with the bow. The King always shoots on horseback, as do many of his courtiers—sometimes with muskets, but oftener with bows. The King takes a great many tents with him. There are no lions, tigers, or wild boars, near Timbuctoo. They play at chess and draughts, and are very expert at those games; they have no cards; but they have tumblers, jugglers, and ventriloquists, whose voice appears to come from under the armpits. They have no temples, churches, or mosques, no regular worship or Sabbath; but once in three months they have a great festival, which lasts two or three days, sometimes a week, and is spent, in eating and drinking. [*Caillié's Travels.*

A gentleman of this town, about four years and a half ago, put a frog into an empty flower pot, which he covered with another pot inverted, and placed them two feet under ground in his garden. A few days since he dug them up, in the presence of several of his friends, when the animal, which had been immured so long without light, air, or food of any kind, was in a state of animation, though considerably reduced in size. [*Monmouthshire Merlin.*

A petrified oak has just been found in the fire-stone quarry at Wideopen, about five miles from Newcastle, at a depth of 42 feet from the surface, and six feet from the bed of the stone. Twenty-four feet of the upper part of the tree has already been taken out; the extent of the remainder cannot yet be ascertained, as about nine months will be required to remove the stone which covers it. Its horizontal exceeds its vertical diameter in the proportion of 17 to 10. Its position is nearly horizontal, the bark, knots, &c. retaining their original appearance; it is hollow at the core, and crystalized; its longitudinal separations are precisely those of wood rent by powerful external pressure; and in breaking it up its transverse section represents the fracture of iron stone. This fire-stone rock is known to extend from Wideopen, which is its western extremity, eastward about four miles. Its width at Wideopen does not exceed a quarter of a mile, shaped as if formed in the ravine, which may extend between Prestwick Car and the German ocean, as rock is found in the whole line. [*Tyne Mercury.*

RECIPES.

CURE FOR GOUT, &c.

The *Notizia del Giorno*, of Rome, gives circumstantial details of several experiments most successfully made on persons of every age, and of both sexes, in that capital, for the radical cure of the gout, rheumatism, and sciatica,—diseases which have hitherto been thought incurable. The recipe consists in administering to the patient forty-eight doses of very warm water, each dose to weigh eight ounces, and to be taken every quarter of an hour during the paroxysm of the disorder. The result of this potion, of which the effect is diuretic, and excites perspiration, is obtained at the tenth or eleventh, and sometimes at the first dose. The physicians say, that although this quantity of drink may occasion nausea and vomitting, the doses should not, however, be diminished; and the remedy, which is cooling and antiphlogistic, is recommended by Drs. Rasori and Tomassini.

TO EXTRACT A GLASS STOPPER.

Take a large strip of wool, pass it once round the neck of the bottle, attach one end of this band to some fixed object, hold the other, and then see-saw the bottle along it. The friction will soon heat the neck of the bottle, and by the heat the neck will expand sufficiently to allow of the stopper being extracted.

TO PRESERVE APPLES AND PEARS.

Wipe the fruit dry, then take a varnished crock or wide-mouthed jar, at the bottom of which is to be a layer of fine and very dry sand; on this place a layer of fruit, and so alternately fruit and sand until the crock or jar is full. Put a very thick coat of sand on the top, and place it in a dry place. Apples or pears thus treated will keep good all the winter. [*Journal des Cannaissances Usuelles.*

TO PRESERVE STEEL FROM RUST.

Take some melted virgin wax, and rub it over the article to be preserved. When dry, warm the article again so as to get off the wax, and rub it with a dry cloth until the former polish is restored. By this means all the pores of the metal are filled up without injury to the appearance, and rust will not attack it unless it is very carelessly exposed to constant humidity. [*Journal des Connaissances Usuelles.*

TO PRESERVE REPTILES.

Three parts of distilled water may be added to one part of alcohol; or equal parts of rectified spirit of wine and distilled water are preferable; these proportions will be found sufficiently strong to preserve reptiles or fishes, and have the additional advantage of not destroying colours I believe either of these mixtures will preserve anatomical preparations. [*Magazine of Natural History.*

GUMBO.

Take an equal quantity of young tender okra, (chopped fine,) and ripe tomatoes (skinned;) and add an onion (shredded small,) a lump of butter, and some pepper and salt. Put all in a stew pan (without water,) and stew for an hour. This is a favourite West India dish. CO. TAB.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 16, 1830.

☞ NEW AMERICAN GARDENER.—This excellent work ought to be in the hands of every Gardener. It is the best practical instructor we have seen; and as this is the season for this most delightful of human employments, we beg leave to call the reader's attention to the advertisement on our last page, of the New American Gardener. The Editor of that work has had the advantage of the very best practical sources of information, and has availed of them to the great benefit of all who read his book.

LATEST FOREIGN NEWS.

By several arrivals at New York, advices from London and Paris, to the 20th March, are received.

The address of the French Chamber of Deputies was read to the King by the President at the head of the deputation from the chamber on the 18th of March, in the Council Chamber at the Tuilleries, where his Majesty was surrounded by the great officers of the crown and all the ministry. After it was read, the King replied in the following terms:

"Gentlemen—I have heard the address which you have just read to me on the part of the Chamber of Deputies. I had reckoned upon the concurrence of the two Chambers to effect the good I had contemplated, with a view to consolidate the happiness of my people. It is with pain I hear the Deputies declare that on their part this concurrence does not exist.

"I announced to you, in my speech, my resolutions; they are immutable. The interests of my people forbid me to deviate from them.

"My Ministers will make known to you my will."

After the Deputation had withdrawn, the Ministers remained in conference with the king about twenty minutes. The answer of the king was such as to leave no doubt of his intention to support the Ministers instead of the Chambers. The 50th article enables him either to prorogue or dissolve the Chambers. The Ministers determined on the former course, and on the 19th, when the Deputies assembled at 1 o'clock, the Minister of the Interior was introduced amidst great agitation and attention of the members. He delivered to the President a royal ordinance under a sealed cover, which was opened and read, announcing his Majesty's pleasure that the Chambers should be prorogued to the 1st of September next. An immense throng crowded the chamber, the galleries, the neighboring rooms and the avenues. The ordinance was also communicated to the Chamber of Peers, and both houses immediately broke up.

The following are the principal articles of the Protocol of London, of 4th January:—

The Russian ambassador having declared that the 10th article of the treaty of Adrianople did not hinder the powers taking, with regard to Greece, the measures that they judged convenient, a declaration from the Porte, stating that she adhered to the resolutions of the conference of London, was communicated.

The following points were in consequence agreed on:

1. That an armistice shall be published.
2. That Greece shall be independent.
3. That the limits, according to the wish of the Porte shall be from the mouth of the Aspropotamus to the Gulf of Zeitoun, Negropont, the Islands of the Devil, and the Cyclades being included.
4. The Government of Greece shall be monarchial and hereditary.

5 A reciprocal amnesty shall be proclaimed by the Ottoman and Grecian Governments.

6. Each of the three Courts shall have the faculty of guaranteeing this arrangement.

7. The effects of the guaranty shall be decided, hereafter.

8. The settlement of the frontiers will be made by the Commissioners of the three powers.

London Corn Exchange, March 19th.—The supply in the market to-day has been very small, and there being no arrivals of importance, the state of trade remains the same in price as on Monday's market. Flour also fully maintains its price.

The cotton market at Havre was brisk at a trifling advance. There had been numerous arrivals and heavy sales.

A committee has been appointed in the House of Commons to enquire into the condition of the poorer classes in Ireland, and the best means of improving it.

Notwithstanding the great and general distress of the poor and labouring classes, the papers continue to speak of further improvements in trade. Much activity is said to prevail in the cotton trade in all its departments. The sales of the raw material from the 1st of January to the 8th ultimo, at Liverpool, were upwards of forty thousand bags more than during the corresponding months in 1829, and the demand for manufactured goods and yarn is more active, though the price of the material has advanced to 20 per ct. higher than in October last. A good deal of business was also doing in the woollen trade, and the demand was increasing.

State of Trade.—We are happy to be able to confirm, in the fullest manner, the accounts we gave of the improvement in the state of trade three weeks ago. Since that period there has been a very large business constantly doing in manufactured goods, the chief descriptions of which have more or less advanced in price. The general opinion seems to be that stocks are lighter now than they have been for several years, and that we have every prospect of at least a fair spring trade. Notwithstanding, also the statements which the gentlemen, whose theory it is that the country is going to ruin, make, as to the immense loss at which our foreign business is done, we find that merchants are still very far from being tired of hearing it. There is a very extensive foreign demand for cotton manufactured goods. The unusually late continuance of the stoppage of the Elbe from frost, has prevented yarns from participating much in the improvement that goods have experienced; but an active purchase of them is not at all likely to be much longer delayed.—*Man. Guardian.*

Cotton Trade.—The revival of the cotton trade in the Netherlands, since the termination, at the peace, of Napoleon's prohibitory system (which forced it there as well as in France, beyond all reasonable bounds) is very striking. The spinning establishments are principally in East Flanders and Brabant; and stuffs of all kinds, calicoes, ginghams, perkales, and printed goods are made in abundance at Ghent, Brussels, Antwerp, Coutrai, Burges, Ypres, Lokeren, and St. Nicholas. It is at Ghent in particular that this trade flourishes, as may be judged by the fact of its containing 68 steam engines for spinning and weaving, while 25 years ago there was not one in all Flanders, the first having been erected by Messrs. Edwards in 1805. Ghent receives annually 40,000 bales of cotton wool, and the new canal, intended to communicate with the Scheld at Terneuzen, will give additional facilities for procuring the raw material. The price of labour is very low at Ghent, compared not only with other countries, but with other parts of the Netherlands; it being but 15 sous a day, while at Antwerp it is 26 sous. The necessity of purchasing from England is almost superseded; and in spinning cotton of the low numbers, from 20 to 40, the manufacturers can already compete with us; a circumstance of some moment, considering the large quantity of cotton of this description we supply annually to the north of Europe.—*Foreign Quarterly Review.*

Liverpool Corn Exchange, March 9.—The market this morning was more numerously attended, both by Town and Country Dealers, than of late, and in Wheat a fair extent of business was transacted, at fully the rates of this day se'night. Oats were again in request, and 3s 3d was obtained for prime parcels. Scottish Seed were sold as high as 3s 8d per 45 lbs. In the value of Beans and Indian Corn there was no change. Flour was held for 1s per sack advance, which improvement was readily obtained for Oatmeal.

Prices Current in Philadelphia, Agril 13.

Bees-wax, yellow .20 a .22; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.00 a —— prime 8 a 9, cargo 7; *Butter*, No 1, 7 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½, Upland 10. a .11, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .7 a .7½. *Flour*, sup. 4.50; fine, 4.00 a 4.25; Rye 2.94 a 3.00; Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask ——; bu. 1.28 a ——; *Grain*, Wheat 90 a 94—Rye 48 a 50, Corn l. e. white, .34 a .35, l. c. yellow, 36 a .37, u. c. round, 40 a 42; Oats .23 a .27, Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .7; *Oil*, linseed, 71 a 72; *Pork*, mess, 12.50 a ——, prime 10.50 a 11; cargo 9.00. *Rice*, 2.25 a 2.75; *Tobacco*, Kentucky .5 a .7, Vir. .4 a .7. *Wool*, common washed lb. .22 a .26, half blood .28 a 30; three quarters blood .32 a .—, full blood 33 a .38; unwashed, generally 6 cents less, according to quality. &c.

NEW AMERICAN GARDENER.

This work is compiled by the Editor of the New England Farmer, with the assistance of a number of scientific and practical horticulturists in the vicinity of Boston and New York. The articles are arranged alphabetically, and comprise complete directions for raising the most useful vegetables and fruits which can be conveniently and economically cultivated in the climate of New England and the Middle States; as well as an elaborate article on flowers, and on landscape or picturesque gardens, on the general management of the silk worm, and the manufacture of silk, and a Treatise on the culture of Grape Vines and the Strawberry. The article on Fruit Trees (from the pen of the Hon. JOHN LOWELL) contains an enumeration and description of all the Apples, Pears, Peaches, Cherries, Plums, Nectarines, Apricots, &c. &c. that can be raised to the most advantage, and their relative forwardness in bearing, which will be found to be of incalculable benefit to gentlemen in laying out orchards. Each of the above articles is furnished by gentlemen practically acquainted with the subjects on which they have written.

The following is the General Index of the book, which is superadded to a Calendarial Index, *giving directions for performing the work of all the months in the year as they follow in succession:—*

Apple, Apple tree, Apricot, Artichoke, Asparagus, Balm, Barley, Bean, Beet, Bene plant, Borecole, Borer, Broccoli, Buckthorn, Brussels sprouts, Canker worm, Caraway, Cardoon, Carrot, Caterpillar, Cauliflower, Celery, Chamomile, Cherry tree, Chervil, Chive, Colewort, Coriander, Cress, water, Cress, garden, Cucumber, Cabbage, Curculio, Currant, Cuttings, Dandelion, Dibble, Dill, Drains, Duck, Egg plant, Elder, Elecampane, Endive, Espaliers, Fennel, Flowers, ornamental; Fruits, Fruit Trees, Garlick, Gooseberry, Gourd, Grafting, Green house, Hawthorn, Heading down, Hedges, Hoeing, Horse Radish, Hot bed, Hot house, Hyssop, Inarching, Indian corn, Inoculation, or budding, Insects, Jerusalem Artichoke, Lavender, Layers, Landscape and Picturesque Gardens, Leaves, Leek, Lettuce, Locust tree, Love apple, Madder, Mangel Wurtzel, Marjoram, Melon, Mint, Mulberry. Mushroom, Mustard, Nectarine, Nursery, Oak, Okra, Onion, Orchard, Parsley, Parsnip, Pea, Peach tree, Pear tree, Pepper, Plum tree, Potato, Pruning, Pumpkin, Quince, Radish, Rhubarb, Roller, Rose, Rosemary, Rue, Salsify, Savory, Sea kale, Silk, Skirret, Spinach, Squash, Strawberry, Tansy, Tarragon, Teasel, Thyme, Tomato, Turnip, Vine.

A further supply of the above excellent work just received and for sale at the office of the American Farmer, and at the Seed Store of Sinclair and Moore, Baltimore.

ALMANAC.

1830. April.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 17	5	24	6	36	13	12	2	40
Sunday,...... 18	5	23	6	37	13	14	3	10
Monday,..... 19	5	21	6	39	13	18	3	55
Tuesday,.... 20	5	20	6	40	13	20	4	35
Wednesday, 21	5	19	6	41	13	22	5	15
Thursday,... 22	5	18	6	42	13	24	sets.	
Friday,....... 23	5	16	6	44	13	28	7	35

Moon—New Moon, 22d, 6h. 14m. Even.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

BALTIMORE MARKETS.—A considerable improvement will be noticed in flour and grain, owing, principally, to the small quantity coming in. The wagon price of Howard street flour is $4.44 a 4.50. First rate lots of wheat would probably command a few cents more than our highest quotations. The beef market begins to get slack, and the highest rates are reduced.

TOBACCO.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 247 hhds Maryland, and 11 hhds Ohio, total 258 hhds.

FLOUR—best white wheat family, $5.50 *a* 6.00—super. Howard st. 4.62½ *a* —— city mills, 4.50 *a* —— Susquehanna, 4.50. CORN MEAL, bbl. 2.25—GRAIN, best red wheat, .90 *a* .92; best white do. .95 *a* —— ordinary to good, 80 *a* 85--CORN, white, .35 *a* 35½—yellow .38 *a* .39—RYE, .50 *a* .51—OATS, .31 *a* —— BEANS, 90 *a* 1.00—PEAS, .65—CLOVER SEED, 4.37½ *a* 5.—TIMOTHY, 2.50—ORCHARD GRASS, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—BARLEY, 55 *a* 60—FLAXSEED, 1.06 *a* 1.12½-COTTON, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .20 *a* .20½; in bbls. 22½ *a* 23—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140-water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.25 *a* —— No. 2, 6.00—No. 3, 3.50 *a* 4.00——BACON, hams, Balt. cured, .9 *a* ——Feathers, .30 *a* ——Plaster Paris, cargo price per ton, 5.00 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.75 *a* 5.50—Pine Wood, by the vessel load, 2.12½—Oak Wood, 2.75 *a* 3.00—Hickory, 3.75.

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JOHN S. SKINNER, Editor, by JOHN D. TOY.

AGRICULTURE.

(From London's Encyclopædia of Agriculture.)

THE CULTIVATION OF FLAX.

(Concluded from p. 35.)

To facilitate the separation of the fibre from the bark, it is necessary to accelerate the process of decay or putrefaction. This may be done in different ways, but the chief are those of bleaching alone, or of steeping and bleaching. Bleaching is a tedious and laborious operation when it is intended as a substitute for steeping, but it is the most certain for not injuring the fibre, and may be adopted on a small scale when steeping places are not at hand. In Dorsetshire, and some other places, flax, instead of being steeped, is what is called dew-rotted; that is, the stalks are allowed to arrive at that state in which the harl or woody parts, separate most easily from the boon, reed or fibre, by a more gradual process, that of ripening by the action and influence of the dew. This is nothing more than exposing the flax to the influence of the weather for a longer period than is necessary, when the operation of watering has been previously performed. Steeping, however, is the most universal practice both in Britain and on the continent. Of late, an invention has been made by Lee, of Middlesex, by which with the aid of soft soap and machinery, the fibre is more completely separated than by steeping, and uninjured by that process. When flax is to be separated by this new process, the cultivator has only to pull it in handfuls, dry it, bind it into sheaves or faggots, and put it up in stacks like corn, till wanted by the manufacturer.

Steeping or watering, however, is and will be the general practice till flax dressing machines come into universal use. In performing this operation, the flax, whether it has been dried and rippled, or pulled green, is loosely tied into small bundles, the smaller the better, because it is then most equally watered. These sheaves ought to be built in the pool in a reclining upright posture, so that the weight placed above may keep the whole firmly down. The weights made use of are commonly stones placed on planks, or directly on the flax.

The Flemish mode of steeping flax, as described by Radcliff, is said to improve the quality of the flax; and greatly increase its whiteness. This mode differs from the common practice, in placing the bundles in the steep vertically, instead of horizontally; in immersing the flax by means of transverse sticks, with that degree of weight annexed which shall not push it down to the bottom, but leave it the power to descend spontaneously towards the conclusion of the steepage; and in leaving at first a space of at least half a foot between the bottom and the roots of the flax. The spontaneous descent of the flax is an indication of its being sufficiently steeped; and the strength and quality of the fibre are said to be much better preserved by this mode, in which the temperature of the atmosphere acts with most force on the upper part of the plant, which needs it most.

The water most proper for steeping flax should be clear, soft, and in standing pools. Compared with running water, pools occasion the flax to have a better color, to be sooner ready for the grass, and even to be of superior quality in every respect. When soft clear stagnating water cannot be obtained without art, a pit or canal is commonly formed, adjoining to a river or stream, whence water can be easily brought. This pit or canal is filled with water for some time (a week or two) before it be proposed to pull the flax; by this means the water acquires a greater degree of warmth than river water possesses, and which contributes greatly to facilitate the object farmers have in view in immersing green flax in water, namely, to make the harl or flaxy substance part easily and completely from the boon or reed.

The period that flax ought to remain in the water, depends on various circumstances; as the state of ripeness in which it was pulled, the quality and temperature of the water, &c. The most certain rule by which to judge when flax is sufficiently watered, is when the boon becomes brittle, and the harl separates easily from it. In warm weather, ten days of the watering process is sufficient; but it is proper to examine the pools regularly after the seventh day, lest the flax should putrefy or rot, which sometimes happens in very warm weather. Twelve days will answer in any sort of weather; though it may be remarked, that it is better, to give too little of the water, than too much, as any deficiency may be easily made up by suffering it to lie longer on the grass, whereas an excess of water admits of no remedy.

Grassing or bleaching flax is the next operation, the intention of which is to rectify any defect in the watering process, and carry on the putrefactive process to that point when the fibre will separate from the bark, boon, reed or harl, (as the woody part of the stem is called) with the greatest ease. In performing this operation, the flax is spread very thin on the ground, and in regular rows; the one being made to overlap the other a few inches, with a view of preventing, as much as possible, its being torn up and scattered by gales of wind. Old grass-ground, where the herbage does not grow to any great height, is the best for the purpose; as when the grass or weeds spring up so as to cover the flax, it is frequently rotted, or at least greatly injured thereby.

The time allowed for grassing is regulated by the state of the flax, and seldom exceeds ten or twelve days. During this time it is repeatedly examined, and when it is found that the boon has become very brittle, so that, on being broken, and rubbed between the hands, it easily and freely parts from the harl, it is then taking up, a dry day being chosen for the purpose, and, being bound in sheaves, is either sent directly to the mill, which is the usual practice in the northern districts, or broken and scutched, by a machine or implement for the purpose.

Steeping flax in hot water and soft soap (said to be the invention of Lee, and for which he was granted by parliament a secret or unenrolled patent) is said to separate the fibre from the woody matter better than steeping in water; and this in the short space of two or three hours, and either with green flax, or such as has been dried and stacked for months or years.

The dressing of flax consists of various operations, such as scutching, tracking, or breaking, by which the woody part is broken; and hackling or combing, by which the fibre is separated from the woody part, and sorted into lengths. These operations are often all performed by the cottager, or small farmer, who grows flax for the purpose of spinning the fibre in his own family. But there are also public flax mills, impelled by water or other powers, by which flax is scutched, and it is then hackled by professed hacklers.

A method of preparing flax in such a manner as to resemble cotton in whiteness and softness, as well as in coherence, is given in *The Swedish Transactions*, for the year 1747. For this purpose a little sea-water is to be put into an iron pot or an untinned copper-kettle, and a mixture of equal parts of birch-ashes and quick-lime strewed upon it; a small bundle of flax is to be opened and spread upon the surface, and covered with more of the mixture, and the stratification continued till the vessel is sufficiently filled. The whole is then to be boiled with sea-water for ten hours, fresh quantities of water being occasionally supplied in proportion to the evaporation, that the matter may never become dry. The boiled flax is to be immediately washed in the sea by a little at a time, in a basket, with a smooth stick at first, while hot; and when grown cold enough to be borne by the hands, it must be well rubbed, washed with soap, laid to bleach, and turned and watered every day. Repetitions of the washing with soap expedite the bleaching; after which the flax is to be beat, and again well washed; when dry, it is to be worked and carded in the same manner as common cotton, and pressed betwixt two boards for forty-eight hours. It is now fully prepared and fit for use. It loses in this process near one-half its weight, which, however, is abundantly compensated by the improvement made in its quality.

Lee's method of breaking flax and hemp, without dew-rotting, was invented in 1810, and was the first step towards a great improvement, brought nearer perfection by the new patent machines of Messrs. Hill and Bundy.

Hill and Bundy's machines are portable, and may be worked in barns or any kind of out-house; they are also well calculated for parish work-houses and charitable institutions; a great part of the work being so light that it may be done by children and infirm persons; and such is the construction and simplicity of the machines, that no previous instruction or practice is required; their introduction, therefore, into those asylums, would be the means of effecting a considerable reduction of the poor's rate. The woody part is removed by a very simple machine; and, by passing through a second machine equally simple, the flax may be brought to any degree of fineness, equal to the best used in France and the Netherlands, for the finest lace and cambrick. The original length of the fibre, as well as its strength, remains unimpaired; and the difference of the produce is immense, being nearly two-thirds; one ton of flax being produced from four tons of stem. The expense of working each ton obtained by this method is only five pounds. The glutinous matter may be removed by soap and water only, which will bring the flax to such perfect whiteness, that no further bleaching is necessary, even after the linen is woven; and the whole process of preparing flax may be completed in six days.

The produce of flax in seed is generally from six to eight, sometimes as high as ten or twelve bushels per acre; and the price depends, in a great measure, on that of foreign seed imported; as, when sold to oil-makers, it is generally about one half of that of Dutch seed sold for the purpose of sowing. The price of home-cultivated linseed is considerably advanced of late in some of the southern and western counties of the kingdom, in proportion to what it is in those of the northern, owing to the circumstance of its being much used as food for fattening cattle. The average price of the linseed cultivated in the kingdom at large, cannot, it is supposed, be rated higher than from three to four shillings the bushel. The seed is separated into three qualities; the best for sowing; the second best for crushing for oil; and the inferior for boiling or steaming for cattle.

The produce of flax in fibre varies exceedingly. Before being sorted, the gross product of fibre varies from three cwt. to half a ton per acre.

The use of flax in the linen manufacture is well known The seed is crushed for oil, which is that in common use by painters; the cake or husk which remains, after the expression of the oil, is sold for fattening cattle, and in some places as a manure; and the inferior seed not fit to crush, is boiled and made into flax-seed jelly, esteemed an excellent nutriment for stock.

As the *making of flax-seed jelly* is an agricultural operation, we shall here describe it. The proportion of water to seed is about seven to one. Having been steeped in part of the water eight-and-forty hours, previous to the boiling, the remainder is added cold, and the whole boiled gently about two hours, keeping it in motion during the operation to prevent its burning to the boiler; thus reducing the whole to a jelly-like, or rather a gluey or ropy consistence. After being cooled in tubs, it is given, with a mixture of barley-meal, bran, and cut chaff; a bullock being allowed about two quarts of the jelly per day, or somewhat more than one quart of seed in four days: that is, about one-sixteenth of the medium allowance of oil-cake.

The diseases of flax are few, and chiefly the fly, which sometimes attacks the plants when young, and the mildew and rust.

LARGE CROP OF CORN.

J. S. Skinner, Esq.

I remember an account you lately published of a crop of Indian corn, grown by Doctor Muse, of the E. S. of this state. The yield was certainly a very fine one, and did great honor to the distinguished husbandry of that gentleman. In contemplating the remarkable products of this "prince of vegetables," in various parts of the United States, I must confess I have always been somewhat of a sceptic; but when the accounts reach us, attested as in the present instance of the Doctor's crop, by a weight of evidence, that leaves no possible doubt of its truth, we are compelled to yield our assent to its correctness.

Every age is replete with something curious and wonderful, and we are warned not to be too lavish of our commendations, while the point to which the arts shall attain is still so far beyond our ken. I recollect some four or five years after the introduction of steam vessels on the great western waters, that an enterprising navigator, I think Capt. Shrieve, performed the voyage from New-Orleans to Louisville, Kentucky, in thirty days, and such was then the wonder created by the exploit, that the citizens of Louisville honoured him with a public dinner. The storming of Schoumla was scarcely more astounding to the natives, than the news at Louisville of this remarkable voyage, by which all the obstacles in the navigation of the American Nile, and even those of space and the elements, were surmounted by Capt. Shrieve. Yet, strange as it may seem, since that epoch, in the progress of the arts, the same route has often been performed by vessels of equal burthen in nine days, without exciting either astonishment or surprise. In days of old, Joshua was famed for wisdom and foresight, and yet subsequent discoveries, down to the Newtonian system, have exposed the imperfections and ignorance of his theory, that imagined the earth to stand still, while all the luminaries of the heavens danced attendance around her.

But, Mr. Editor, to my point; when the Agricultural Society of Pennsylvania awarded its first premium for the production of fifteen barrels of Indian corn to the acre, it was scarcely imagined that such a crop could be grown, as I am now about to report for the Farmer. Enclosed you will receive an account of a crop of Indian corn grown by Mr. John Simms, of St. Mary's county, Md. during the past year. It was politely furnished me by Col. Millard of Leonardtown, who is a very scientific surveyor, and I believe measured the land from which the crop was taken. The whole evidence in support of this extraordinary yield is of the most respectable and unexceptionable character, and the public may have perfect reliance on its accuracy.

Respectfully, your obedient servant,
H. V. Somerville.

On the 9th November, 1829, the following persons visited Mr. John Simms', on the Patuxent, in St. Mary's county, for the purpose of ascertaining the quantity of Indian corn made on an acre of land, to wit:

Francis Abell, Richard Edelen, Oswald B. Bronke, E. J. C. Millard, John Dillehay, Edmund Heard, Joseph Simms, Francis Simms, James F. Floyd, John Alexander Greenwell, Benedict J. Fenwick, Henry B. Martin, Bennet Stone, Bennet Fenwick, Robert Greenwell, John Simms, E. I. Millard.

The committee proceeded to lay out an acre of corn by actual survey, when Mr. Simms put under the committee's superintendence eighteen hands with an ox team, and upon its being gathered it was found to produce, by actual measurement, 24 barrels, 3 bushels, 6 gallons, 3 quarts, and 1 pint of corn.

The whole field from which this acre was selected produced 563 barrels. Five beeves were fatted in the field—a great deal destroyed by the incursions of the stock of horses and hogs, and the corn much broke down from the weight of the ears—one corn-stalk 12 feet 2 inches to where the two ears of corn grew, so that the top which had been cut off, must have been from three to four feet.

The whole field was not surveyed, but it was estimated from view, that 25 acres of it would average 20 barrels per acre, and 15 acres, the supposed remaining quantity of land would produce the 63 barrels, being more than 4 barrels to the acre.

MEMORANDA.

J. S. Skinner, Esq.

I propose at convenient times, and at such considerable intervals as shall not subject me to the imputation of claiming an undue portion of your columns, to offer to your readers (with your permission) some desultory essays and facts on agriculture, under the title of the *North Carolina Farmer;* and I adopt this name because I know next to nothing of the agriculture of any other state, except the contiguous parts of Virginia, not far from the borders of which state my little farming business is conducted—and of North Carolina itself, my experience and observation is limited to a very few counties. Thus much by way of allaying expectation; yet I hope my papers will have some value, and though adapted to a particular point, may, as the almanac makers say, "serve without sensible variation for the counties and states adjacent."

In this age of improvement, every man owes something to the public stock of useful knowledge. A few, according to the doggerel of Dr. Donne, "are born, merely to eat up the corn," and leave the world none the better for their having lived in it. I have but my mite to offer, yet a sense of public duty impels me to bestow it. I do now and then hear those who are not much troubled with book knowledge, object to *book farming*, but this is not the era of time, or mind, when such objections require much to confute them. One man cannot learn every thing, nor indeed much of any thing from his own experience. Each must inquire of his neighbour, and that neighbour's information is none the worse for being put into print. It thereby becomes public stock, a standing record for frequent reference. By means of a book a man becomes possessed of the experience of thousands, and his benefits are the same as if he had himself lived and experimented to the age of Methusaleh. This perfection of knowledge is but the combination of the mind and experience of ages.

To show the progress of improvements, and that this is no time for them to rest, I will give a few in agriculture and the useful arts, proving by their recent dates that our fore-fathers at no distant periods suffered privations of those things which give such utility and embellishment to life in the present age, as would seem only to make it worth possessing.

Air balloons, invented by Mongolfier, 1783.
Air pumps, 1654.
Algebra, first known in Europe, 1494.
Argand lamps, 1785.
Arithmetic introduced into Europe from Arabia, 991.
Arithmetic, decimal, invented, 1402.
Artichokes introduced into England, 1487.
Asparagus, 1608.
Auction, the first by Elisha Tate, Governor of Fort St. George, to sell his goods, 1700.
Bank of England, established, 1640.
Bark, Jesuits, first used, 1650.
Barometers invented, 1626.
Bayonets, at Bayonne, 1693.
Beer first used in England, 1492.
Blankets first made in England, 1340.
Blue, Prussian, discovered, 1704.
Book-keeping, by Italian method, first in England, 1569.
Bread first made with yeast in England, 1650.
Buckles first worn.
Burying in woollen, began to encourage the manufacture in England, 1678.
Coach, Berlin, invented, 1509,
Calendar of Pope Gregory, 1579.
Calico printing in Flanders, 1676.
———— first in England, 1772.
Canal, first in England, 1134.
Candles little used, splinters of wood common, 1300.
Cannon invented, 1330.
Celery and Cauliflowers, introduced in England, by Count Tallard, when a prisoner after the battle of Malplaquet, 1709.
Chimneys not known in England, 1200.
China ware, first made in England, 1752.
Cinnamon, first brought to Europe, 1506.
Clock makers, the first in England were three from Holland, in 1568.
Coal discovered at New-Market, 1234.
Cards invented, 1390.
Cloth, woollen, first made at Kendal, 1390.
Coaches first used in England, 1580, *an act of parliament to prevent men riding in them, as effeminate*, 1601.
Coffee first brought to England by a Cretan, 1641.
Coffee first cultivated in the West Indies, 1731.
Cider, (then called wine,) first made in England, 1234.
Dresden china invented, 1702.
Diamonds, first polished, 1489.
Distaff spinning, first in England, 1505.
Dipping and Dying, in 1608; *English sent their cloth to Holland to be dyed.*
Electric stroke, (at Leyden,) 1746.
Fire Engines invented, in 1663.
Engraving and rolling press, 1460.
Gamut in music, 1025.
Gardening introduced into England from Netherlands, from whence vegetables were imported for London tables until 1509, *when were first cultivated in England, muskmelons, apricots, gooseberries, cabbages, sallads and garden roots. Damask roots and pippins introduced*, 1525. *Currants or Corinthian grapes, brought from Zante*, 1535. *Plums*, 1567. *Beans, peas, &c. &c.* 1600.
Gauze, lawn and thread, at Paisley, 1759.
Gazettes, Oxford, 1665; London, 1666.
Gilding, 1273.
Glass windows, first in England, 1180, first bottles made in England, 1557. Looking glasses, 1673.
Circumnavigation by Magellan, 1591.
Grapes first planted in England, 1552.
Green dye, 1777.
Greek, first studied in England, 1491.
Gold coined, 1673.
Gunpowder invented by Schwaartz, 1330.
Handkerchiefs first made in England, 1743.
Hats invented at Paris, 1404.
—— first made in England, 1510.
Hemp and flax, first raised in England, 1533.
Herring pickling invented, 1397.
Hops first used in England, 1525. *Parliament petitioned against them as a "wicked weed," wormwood used before in beer.*
Indigo first raised in Carolina, 1747.
Insurance on ships, 1560.
Interest first mentioned, for the word usury, 1624.
Iron first cast in England, 1544.
Iron wire first drawn in England, 1568.
Jewels first worn, by Agnes Sorrel, 1434.
Knitting stockings, invented in Spain, 1550.
Knives first made in England, 1563.
Linen first made in England, 1253.
Magnifying glasses, R. Baun, 1260.
Maps and Charts first brought to England, by B. Columbus, 1489.
Map of England, the first by Geo. Lilly, 1520.
Microscope, Solar, 1740.
Needles first made in England, by a native of India, 1545, *art lost at his death, and recovered by Chr. Greening*, 1560, *the ancestor of the present Lord Milton.*
Opera, first in England, 1692.
Paper first made in England, 1690.

Pins first used in England, by Catharine Howard, 1543.

Post horses and stages, 1483.

Plays first acted in England, by priests, 1378.

Potatoes introduced by Drake, 1610.

Printing invented, 1441.

Pumps, 1425.

Rice, first in South Carolina, 1702.

Sail cloth first made in England, 1593.

Sheep sent from England to Spain, 1633.

Soap first made in England, 1524.

Speaking trumpets invented by Kircher, 1652.

Spectacles, by Spina, a Monk of Pisa, 1299.

Spinning wheel at B., 1530.

Stockings, the first in England, were presented to Queen Elizabeth, in 1560, and Howell says, "she never wore cloth hose any more."

Stops in literature, 1520.

Straw used for the King's bed, 1234.

Stucco, 1500. Sugar little used in England, until 1600.

Telescope invented by Jansen, 1590.

Tobacco first used in England, 1583.

Turnpikes, 1663.

Turkeys first brought to England, in 1523.

Vines and Cane, planted in Madeira, 1420.

Weavers, two from Brabant, settled at York, "which" says King Edward, "may prove of great use to us and our subjects," 1331.

Whalebone first brought to England, 1671.

Within our own remembrance, Steam engines, Railroads, and inventions and improvements, without number, very far exceeding those of any former age.

Jethro Dion.

INQUIRY.

Darlington Court House, S. C. April 12, 1830.

J. S. Skinner, Esq.

Dear Sir,—I have a plantation that is infested with a troublesome kind of grass called joint grass, which resembles cane roots; if any gentleman who reads your valuable paper can describe a mode of getting clear of it, it will be considered a favour by the subscriber. With respect, I am, &c.

T. W.

HORTICULTURE.

(From the Baltimore Gazette.)

CULTIVATION OF SILK.

Silkworms.

The *fixtures* necessary for raising silkworms are, appropriate tables or shelves, in number and size corresponding with the number of worms to be fed. The best form for shelves that I have seen is that adopted by my friend Mr. J. Y. Tomkins of this city. It is about 2½ feet wide, by 5 or 6 feet long, made of thin boards, with a piece 2 inches wide nailed flat on the upper edge along the sides and ends, with legs about a foot long in the corners. The legs do not pass through the table, but leave a part of the hole on the upper side, for the feet of another table to set in. Thus contrived, five or six of these tables are set one above another, and are taken down, cleaned and again set up with facility. One of these shelves will accommodate about 500 worms. If I could suggest any improvement upon these shelves, it would be the substitution of twine net-work for the board floors, with slides under them to catch the excrement of the worms. The room or laboratory must of course be of a size proportionate to the number of worms raised, and should be provided with windows or other ventilators on the north and south sides at least; and if one or two ventilators are opened in the ceiling, it will be of great service. These ventilators, however, should have shutters that they may be closed at any time when necessary. Fire places or stoves should also be provided for use when necessary. For the accommodation of 1,000,000 of worms, a room about 80 feet long and 40 wide would be required. A large establishment would also require a ware-room for the deposit of leaves, and this should be large, so that in wet weather the leaves may be shaken and scattered about for the purpose of drying. This room might be advantageously situated above the laboratory. A cool, dark cellar, will also be useful, for keeping the leaves fresh in dry weather:—white mulberry leaves will thus keep fresh three days—the native mulberry leaves will not keep so long. The number of attendants necessary for 1,000,000 of worms, will be two the first week, four the second, eight the third, and sixteen to twenty the remainder of the feeding season; one half of which may be boys and girls.

At the period for hatching, which in Maryland is generally about the 1st of May, the eggs, which are presumed to have been kept in the cellar, may be brought out, and spread on paper on a common table, called the hatching table. The proper period is always best ascertained by the state of the mulberry leaves. I consider the best and most safe time to be that when the leaves are about the size of a half dollar. The hatching table may be kept in the common laboratory. If the weather be mild and warm, the eggs will begin to hatch in eight or ten days. The first day or two there will but few leave the eggs—they need not be attended to. On the third day a considerable quantity will hatch. Some fresh leaves should then be laid on them, when they will soon attach themselves to the leaves, and should be removed on to a shelf, and be thinly spread out. The next day all that have hatched should be treated in the same way; and so on till they have all hatched, which will generally be in five or six days. Each day's hatching should be placed on separate shelves, and the whole laboratory arranged into as many divisions of shelves, as there were day's hatchings, that they may be continually kept separate. This is important, that the periods of moulting and spinning may be as nearly the same with all the worms on a shelf as possible.

In large establishments a small, close room, with a stove, will be very useful in hatching the eggs; as the temperature may be regulated at pleasure. But in this case a thermometer is almost indispensable, as there would be danger of too high a degree of heat, which would spoil the eggs at this season, and the necessary equability and gradual increase of temperature could not be secured without one. In this mode of hatching by artificial heat, the worms will be brought out with more regularity and in less time, than in that above described, and therefore it is preferable in large establishments. The hatching room should be, when the eggs are carried into it, of about 70° temperature, which should be increased one degree a day till the worms are hatched. The hatching room will therefore be of about 80° temperature when the worms are hatched, and if the laboratory is not then about the same temperature it should be raised to it, or nearly so, before carrying in the young worms, that they may not experience too great and sudden a change.

The leaves may be torn in small pieces whilst the worms are small, and the worms should be fed during the first week, two or three times a day, by scattering the leaves over them. The second week the worms will require food three times a day; the third, fourth and fifth, it should be given them as fast as it is either consumed or become withered. The periods of moulting are, generally, about the 7th, 13th, 19th and 24th days of their age, but these periods are materially influenced by the care and attention bestowed on the worms—some worms will begin to spin on the 25th day; while others will delay their spinning even to forty-five or fifty days, according as they are well or ill attended to. At the periods of moulting, the worms do not eat, and if they all moult together, no food need be given them; but should they not be thus simultaneous in changing their skins, those which require food should be supplied, even though the others may be disturbed by it. They are about 36 hours shedding their skin.

The Italians strenuously insist upon cutting the leaves *fine*, before giving them to the worms; but, having tried this plan, I found an objection to it which induced me to reject it. When the leaves are cut fine, the worms easily press them down, and they are lost, having become a mere carpet for the worms. I therefore, never cut the leaves after the worms are two weeks old; but for several reasons, I prefer laying on the whole leaves, and even the small branches. When laid on whole, the leaves keep fresh till consumed; especially when left upon the small twigs. The small branches have another advantage—the worms can climb, and fix upon them, over and under them, so that the same shelf will accommodate many more than when the leaves are cut fine and they are obliged to remain on a common level surface. The worms also prefer this mode, as it approaches nearer to the nature of the limbs of the tree.

Every two or three days the shelves should be well cleared of litter and excrement, to effect which the worms may be removed in the following manner:—lay on either large leaves or twigs with leaves, and as soon as the worms attach themselves to them, bear them to a clean shelf; repeat the operation till all are removed. Some lay fresh leaves on one side of the shelf, and leave the worms to go over to them, and then clear off the other side. I prefer the first plan. Very few leaves will suffice for the first ten days; a dozen, torn into small pieces will be enough for each shelf, the 1st, 2d, 3d and 4th day; double the quantity the next two days. However, it is unnecessary to attempt estimating the quantity, as the intelligent attendant will readily discover what is necessary, and be able at all times to guard against both stinting the worms and waste of leaves. They should always have as much as they will consume and no more. Great care must be observed that the leaves be perfectly free from wet, and fresh. When they have been kept some time, the leaves begin to turn black or dark colored, and should be thrown away. In wet weather, the leaves may be dried by taking them into a large room, spreading them out, and occasionally shaking them up.

Great care should be taken to guard against mice and ants; mice devour them with avidity, and the bite of an ant is almost instant death to the worm. Isolating the shelves from the walls and setting the feet in basins of water will protect them from ants; but the access of mice to the room must be cut off.

The success of the crop depends upon the cleanliness of the shelves, and purity of the air in the room, especially in hot, and more particularly in damp weather. If the excrement and litter be allowed to accumulate, fermentation and putrefaction soon commence, and the consequence will be fatal to the worms, especially in hot, damp weather; besides, the worms at all times thrive better when the shelves are kept clean, and nothing but fresh leaves allowed to remain about the worms. To guard against impurity of air, which is the greatest enemy the silk worm has, a small quantity of *chloride of lime* should always be kept in a plate in some part of the room. It is a cheap and most effectual preventive of this cause of disease in worms, as well as a powerful remedy for the *tripes*, and other diseases that have become epidemic. It is generally retailed at the drug shops at 25 cents a pound, and four pounds will be sufficient for the largest laboratory. A couple of spoonfuls may be put into a plate with about a gill of water, and should be replenished every three days.

Where proper cleanliness and due attention to ventilation are observed, there is little to be dreaded from hot weather. Nevertheless, in very hot weather all the means at hand should be availed of for the reduction of the temperature of the room; for worms will thrive best in moderate temperature. But ice, or sprinkling the floor with cold water, should never be resorted to, as has been recommended; for the vapour thus produced will do more injury than the heat. Where convenient, the laboratory should be shaded with high trees on the south side. An open, high piazza to shield the south front of the house from the sun's rays will also be of service. Opening the windows and doors, and the ventilators in the ceiling, will then be all that can be done to cool the room; and this should never be neglected in hot weather. There is much more danger from cold than heat; and on the slightest appearance of a cold night, fire should be made in the fire places or stoves, and replenished as often as necessary. The temperature should be kept as equable as possible, and sudden changes guarded against. For this purpose a thermometer will be very useful; but the senses of the attendant will be a sufficient substitute if care be observed. I do not pretend to give the degrees of temperature most suitable for silk worms; for although we can increase the heat, it is not easy to reduce it in a large room, when the surrounding atmosphere that supplies the air circulating in it, is of a high temperature. It may be observed here, that the cool sensation felt while sitting in a current of air, is no evidence of that air or the place we sit in being of a lower temperature than the air of a room where there is no such current. The air passing over the surface of our bodies carries off heat, and thus causes the cold sensation, while at the same time the current of air, that "feels cool," is many degrees warmer than our bodies. But silkworms are not warm blooded animals, and of course they do not experience the same relief, having no excess of animal heat to be carried off. Although many persons have assured me that they had lost many worms by hot weather, I am constrained to think, that the heat was not the sole cause of the loss, for I have never lost a worm that I could attribute to that cause. Hot weather will undoubtedly cause the destruction of the whole of them, if the litter and excrement be left unremoved; and I always suspect some such want of attention in every instance of the destruction of worms by hot weather. Heat does not injure the worms in their natural state, nor will it in their state of domestication, if they are kept as free from filth as they are on their native trees. Keeping the shelves clean, the worms not too much crowded, the air in the room pure by the use of chloride of lime and ventilation, and feeding with fresh dry leaves, I consider the best and only preventives of any ill effects from hot weather.

Between the 25th and 35th days of the worm's age they will show signs of a disposition to spin. They will become somewhat of an amber color about the joints of the body, semi-transparent, throw out fibres of silk on the leaves, and wander about. The *brush* for the cocoons should now be provided. The best and simplest that I have been able to find is the *broom-corn*. Clear it well from seeds, and cut it from the stalk close to the junction of the straws; spread out the top in imitation of a small tree, and set it on the shelf with the top pressing against the bottom of the upper shelf to hold it in its position. It may be set in rows six or eight inches apart, across the shelf, and over the top shelf an extra one may be placed for this purpose. The worms will readily find and climb these little trees and spin their cocoons in them; the worms will be four days spinning their cocoons, and they will all generally be finished on the 8th day after they first began—that is, all of the same day's hatching. The brush may then be taken down, the cocoons taken off, cleared of the loose *tow*, and prepared for reeling.

The cocoons from which eggs are expected must be spread out in a room, secure from mice and ants, and in five to ten days the moths will come out of the cocoons, when the males and females will couple; they must then be taken by the wings in pairs without separating them, and placed upon sheets of paper disposed for their reception, where they are to remain. There is generally about an equal number of each sex. I have found the best mode for fixing the paper for the moths to lay on, as follows: stretch two pieces of strong twine across the room from wall to wall, about two feet apart, and another about a foot over the middle of these. Lay large sheets of paper (old newspapers will do) over them and pin them down at each side to the lower twine. The sheets of paper will then be in the form of the roof of a house. As many pairs of moths as can conveniently lie on the papers may be placed there. This mode has the advantage of security against ants and mice, which are very destructive to these insects. The room should be dark, if possible, while the insects are on the papers, and each sheet should be filled before any are put upon another, and as soon as the moths on one sheet are done laying eggs, it should be taken down, folded, and put in a tin box in a cold cellar, where all the eggs must be kept till wanted for use next spring. The moths are in the form of a greyish white butterfly, and generally begin to lay eggs in 24 to 36 hours after leaving the cocoon. The eggs are at first of a pale yellow, or somewhat of a sulphur colour, but in three days turn to a light slate colour, and subsequently to a dull brownish slate colour. When seen through a microscope they are speckled. Those that remain yellow have not been fecundated, and of course are worthless. Each healthy female moth will lay about 450 eggs, generally handsomely disposed and firmly attached to the paper in a circular form, the whole covering a space about the size of a fifty cent piece.

Should the eggs be permitted to remain exposed to the warm weather, they will hatch, and, unless another crop be desired, they will be lost. This is the only injury they are liable to from warm weather. The flies eat nothing after leaving the cocoons, and die in a few days after depositing the eggs. The tin box in which the eggs are directed to be kept, is intended to protect them from mice and insects. The eggs should be kept in a dry cellar, as mould and mildew will injure them. There will be many double cocoons, those which have two or more worms in them; these and as many more of the others as are wanted should be selected for eggs.

Gideon B. Smith.

GRAPES—ASPARAGUS.

J. S. Skinner: *4th mo. 7th*, 1830.

The individual who takes the liberty to address thee at this time, is not a practical farmer, or a *finished* horticulturist. In regard to either, his pretensions are humble, yet humble as they are, he ventures to say, no individual in our state takes more pleasure in viewing the advancement of that great source of national wealth—agriculture; and that most pleasing of employments, gardening or horticulture. I have paid some attention to the cultivation of the grape—and have found from experience, that the coal dust, cinders, and scales of iron, or black oxide of iron, from the black-smith's forge, when properly mixed with *fine garden mould*, to be *incomparably* the best manure for the grape that can be used. It is a well known fact, that grapes thrive best in volcanic districts; that led me to use the above as a dressing for the grape, and found it to exceed my most sanguine expectation. I am not aware, that the material in question, has been used by any except myself and a few of my friends in this county. I mentioned it to a most indefatigable and *correct botanist* and horticulturist, David Thomas, of Cayuga county, last winter—he spoke of it in high terms of commendation, although he had not used it. It had not occured to him. Before this will reach him, he probably will have made use of it. For asparagus, I have also made use of finely pulverised oyster shells, well incorporated with the earth, in which it is planted, or well dug in about the roots of old beds. Its effects are astonishing, especially on old beds—it in fact regenerates them. The asparagus is, as is well known, a marine plant. *Fresh* oyster shells partake largely of marine qualities. What could be more simple, or more natural, or better suited to the growth of marine plants? It is also well known, that disintegrated carbonate of lime, when mixed with a suitable proportion of vegetable mould, form a soil, almost perpetually fertile, and that few or no plants, or vegetables with which we are acquainted, but are benefited by its admixture with the soil in which they are placed. As there are many persons turning their attention to the cultivation of the grape, especially in the neighborhood of Baltimore, and as I wish them all success, and abundant crops, I take the liberty to address an individual with whom I have not the personal good fortune to claim an acquaintance.—May blessings attend thee, my friend, in thy laudable exertions, to render agriculture both honorable and profitable. Thy friend, J. W. Smith, M.D.

Lockport, Niagara county, New York.

RURAL ECONOMY.

PRESERVATION OF BUTTER.

M. Thénard recommends the method used by the Tartars; which consists in infusing the butter in a water bath at a temperature of 190° Fahr., and retaining it quiescent in that state, until the caseous matter has settled, and the butter become clear; it is then to be decanted, passed through a cloth, and cooled in a mixture of salt and ice, or, at least, in spring water, without which it would crystallize, and not resist so well the action of air. Preserved in close vessels and cold places, it may be kept for six months as good as it was on the first day, especially if the upper part be excepted. If, when used, it be beaten up with one sixth of cheese, it will have all the appearance of fresh butter. The flavor of rancid butter may, according to M. Thénard, be removed almost entirely by similar melting and coolings.

[*Quarterly Journal.*

Process for Preserving Milk, for any Length of Time.

This process, invented by a Russian chemist named Kircoff, consists in evaporating new milk by a very gentle fire and very slowly, until it is reduced to a dry powder. This powder is to be kept in bottles carefully stopped. When it is to be employed, it is only necessary to dissolve the powder in a sufficient quantity of water. According to M. Kircoff, the milk does not by this process, lose any of its peculiar flavor. [*Ib.*

Cement for Hard Stones, Porcelain and Glass.

This cement is a natural product, which, without being abundant, is in sufficient quantities for all ordinary uses. The large snails which are found in gardens and woods, and are sometimes used for food, have a vesicle at the extremities of their bodies filled with a whitish substance, having a greasy and gelatinous appearance. If it be applied between two surfaces, whatever be their hardness or compactness, and the surfaces be brought together throughout, so strong an adhesion is ultimately occasioned, that if violent blows or thrusts be given to the substances, they frequently break elsewhere than at the junction. A flint about the size of a fish having been broken into two pieces, and rejoined by these means, being thrown with violence on the pavement, broke into fragments by fresh fractures crossing the former junction, but not going along with it. All that is necessary to give this cement its full power is to allow it time to dry. [*Ib.*

He that spares when he is young, may spend when he is old.

(From the Charleston Gazette.)

RICE FLOUR.

Some notice of the preparation of this article for domestic purposes, was made in the daily prints a week or more since. Through the polite and friendly attention of Col. Vanderhorst, we have been favored, not only with a specimen of a very superior article prepared under his own direction, but with the proper manner of making use of it. We do not know that we can do a better service to our southern trade, than by giving these various modes of its preparation, in order to overcome a difficulty in the use of it, arising entirely from a general ignorance of the article in its present form. Our readers will observe that we do not arrogate to ourselves the framing of these valuable prescriptions. We never boiled rice in all our lives; though we have some little credit for ability in encountering it in a different way. But the ladies to whom we are specially indebted on more occasions than one, have graciously informed us where we have been in fault. For the making of *rice bread*, then. you are required to

Boil a pint of rice soft—add a pint of leaven, then three quarts of the flour—put it to rise in a tin or earthen vessel until it has risen sufficiently—divide it into three parts—then bake it as other bread, and you will have three large loaves.

To make Journey or Jonny Cake.[*]—To three spoonsful of soft boiled rice, add a small tea-cup of water or milk—then add six spoonsful of the flour, which will make a large Journey Cake or six waffles.

To make Rice Cakes.—Take a pint of soft boiled rice—a half pint of milk or water, to which add twelve spoonsful of the flour—divide it into small cakes, and bake them in a brisk oven.

To make Wafers.—Take a pint of warm water, a tea-spoonful of salt—add a pint of the flour, and it will give you two dozen wafers.

To make Rice Puffs.—To a pint of the flour add a tea-spoonful of salt, a pint of boiling water—beat up four eggs—stir them well together—put from two to three spoonsful of fat in a pan—make it boiling hot, and drop a spoonful of the mixture into the fat as you do in making common fritters.

To make pap Pudding.—To a quart of milk add a pint of the flour—boil them to a pap—beat up six eggs, to which add six spoonsful of Havana sugar and a spoonful of butter, which when well beaten together add them to the milk and flour—grease the pan in which it is to be made, grate nutmeg over the mixture and bake it.

After all this is done, the sooner they are eaten the better.

LADIES' DEPARTMENT.

THE FEMALE HEART.

There is nothing under heaven so delicious as the possession of pure, fresh, immutable affections. The most felicitous moment of man's life, the most ecstatic of all his emotions and sympathies, is that in which he receives an avowal of affection from the idol of his heart. The springs of feeling, when in their youthful purity, are fountains of unsealed and gushing tenderness—the spell that once draws them forth is the mystic light of future years and undying memory. Nothing in life is so pure and devoted, as a woman's love. It matters not, whether it be for a husband or child, or sister or brother, it is the same pure unquenchable flame, the same constant and immaculate glow of feeling, whose undeniable touchstone is trial. Do but give her one token of love, one kind word, or one gentle look, even if it be amid desolation and death—the feelings of that faithful heart will gush forth as a torrent, in despite of earthly bond or mercenary tie. More priceless than the gems of Golconda, is the female heart; and more devoted than the idolatry of Mecca is woman's love. There is no sordid view, qualifying self-interest in the feeling. It is a principle and characteristic of her nature—a faculty and infatuation which absorbs and concentrates all the fervor of her soul, and all the depths of her bosom. I would rather be the idol of one unsullied and unpractised heart, than the monarch of empires. I would rather possess the immaculate and impassioned devotion of one high-souled and enthusiastic female, than the sycophantic fawnings of millions.

(From the New York American.)

LOVE AND REASON—An Allegory.

One night when Love oppress'd with pain,
Had thrown aside his golden quiver,
And gone to cool his throbbing brain,
To roam awhile by Reason's river:

Upon the bank of roses gay,
Which fringe the edge of Reason's water,
He saw a cherub girl at play,
And knew the romp—for Reason's daughter.

"Come hither, hither, blooming child—
Long have I sought to have thee near me:
Let's roam among those roses wild—
I've net my bow—you need not fear me!"

As Love pronounced the maiden's name,
From his bright wing he plucked a feather:
Pleased with the proffer'd toy, she came,
And hand in hand they roam'd together.

At length there rose a tempest wild,
Though Reason thought 'twas not unpleasing:
But storms scarce felt by Reason's child,
To gracile Love appear'd, oh freezing!

"Now screen me from this icy air!
My wings are all too wet for flying!
Oh, take me to that bosom fair!"—
Said Love to Reason, softly sighing.

And nestling up to Reason's form,
Spread his chill wings on Reason's shoulder—
And this is why *as Love grows warm,*
Reason they say, *grows always colder.*

The Zephyr now rode down the air,
And kiss'd the rain-drops from the cresses;
And Love unbraided Reason's hair,
And dried his wings with Reason's tresses.

But both grew faint and weary soon—
"Reason," said Love, "the choice is ours;
Let's stay beneath this silver moon,
And sleep to night among the flowers."

Reason replied, with drooping head,
And pausing 'neath a weeping willow,
They made a soft carnation bed,
And plac'd a rose-bud for a pillow.

But, lest another storm might rise,
Of which they'd have too little warning,
One was to watch the changing skies,
And one to sleep, by turns, till morning.

Thus each awhile in slumber lay;
Each watch'd the other's couch of roses;
And this is why they always say
When Love awakes, Reason reposes.

Harp of the Isle.

West-point.

Miscalculation of the relative value of things, is one of the greatest errors of our moral life.

MISCELLANEOUS.

The World Good on the Whole.

You ask, If I would agree to live my seventy, or rather seventy-three, years over again? To which I say, yea. I think with you, that it is a good world on the whole; that it has been framed on a principle of benevolence, and more pleasure than pain dealt out to us. There are, indeed—(who might say nay)—gloomy and hypochondriac minds, inhabitants of diseased bodies, disgusted with the present, and despairing of the future, always counting that the worst will happen, because it may happen. To these I say, how much pain have cost us the evils which have never happened? My temperament is sanguine. I steer my bark with hope in the head, leaving fear astern. My hopes, indeed, sometimes fail, but not oftener than the forebodings of the gloomy.

[*Memoirs of Thomas Jefferson.*

ANIMAL DECEPTION.

We extract the following from the notes of a recent traveller in the Libyan desert:—"October 12th. Being on watch this night, I caught for the first time the *scarabœus ateuchus sacer*, or chafer, with which the imaginations of the ancient Egyptians so frequently busied themselves. My attention was attracted by a noise close to my side, and athwart the darkness I discovered a large rolling ball. Conceiving it to be a crab or land-tortoise, I took it into my hand—but found it to be nothing but a lump of horse dung; and immediately afterwards I perceived a similar ball come rolling towards me. Upon holding my lantern down and minutely examining the strange machine, I found that it concealed a large black chafer, who drove it forwards by means of his long hind legs; and as it proceeded, it gradually increased in size by the continual accumulation of sand; this, indeed, became so considerable at last, that the insect itself was scarcely perceptible. It is more than probable that the Egyptian priests took advantage of this deception to mystify their followers, and that their veneration for the chafer, or scarabæus, arose from that circumstance. Upon a further examination, with the aid of my lanter, I discovered several animated balls of a like description more than three inches in diameter; my Arabian companions, however, did not appear to take the slightest notice of them."

MENAGERIE.

Messrs. Doolittle and Co's Caravan of Animals, which was exhibited in this city, last summer,—comprising a great variety of rare animals, was sold in Philadelphia, some weeks since, at public auction. The animals were sold in separate lots, at the following prices:

The Elephant, with wagon, sign and cage,	$7,000
Three young Leopards, without cage, $100 ea.	300
African Lion, with cage, &c.	2,000
Royal Tiger, with do.	1,400
White Bear, with do.	1,000
Hyena, with do.	100
Two Leopards, male and female, with do.	500
Ostrich skin, &c. with do.	60
Dandy Jack, and Shetland Pony,	100
Dandy Jack and Pony,	95
A lot of small animals,	50
	$12,605

[*Philadelphia pa.*

There is now at Bordeaux a young girl, born without feet and arms, who writes, draws, knits, and loads a pistol, with her mouth; she is almost as dexterous with her nose, and plays different waltzes on the piano. She is also stated to possess remarkable beauty.

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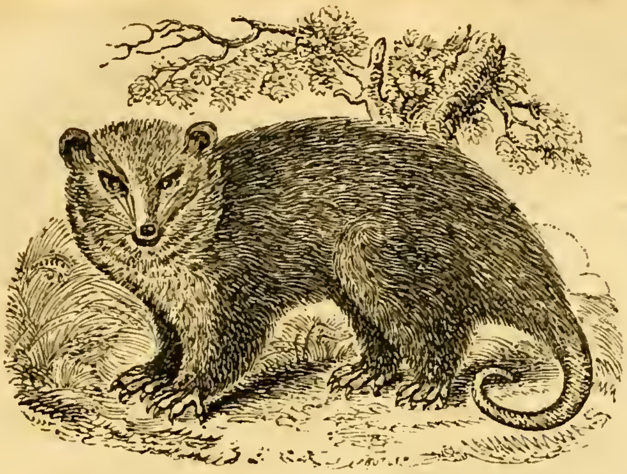
[*] We have a strange notion that this should be neither Jonny nor Journey, but Jenny Cake. We have not the slightest question but that it was called so by some rustic lover, in compliment to his mistress, who possibly excelled in the art of preparing it. Let it then, in future, be called "Jenny Cake;" and whoso' (man) shall henceforth call it by any other (masculine) appellative, let him not partake of the delicacy.



(From the American Turf Register and Sporting Magazine, Vol. 1, No. 8)

NATURAL HISTORY.

We have selected for our present number the natural history of one of the most interesting animals in our country. We shall first state its classical characters, and proceed to particularize some of the most remarkable traits of its physical configuration and habits. In the arrangement of zoologists the *opossum* is located as follows:

Class, Mammalia, &c. *Order*, Carnivora, &c.

Sub-order, Pedimanā; thumbs separate, or wanting on the hind feet only: grinding teeth with sharp prominences; marsupial bones in both sexes; most frequently a pouch, or simple longitudinal duplication of the skin of the belly in the females; complete clavicles; a cæcum and large intestines; the penis of the male, and the vagina and the clitus of the female, with a bifurcation; teats inguinal, and situated in the pouch or doubling of the skin.

Genus, Sarigua, Desmarest, Didelphis, Linn. Ten superior, eight inferior cutting teeth, of which the intermediate are the broadest and shortest; tusks long and pointed; thumb of the hind feet separated, and destitute of a claw; the other toes of an equal length, and either free or palmated, and furnished with strong, but not very pointed claws; tail long, naked, and prehensile; external ears pretty large; tongue ciliated in the margin; sole of the foot resting on the ground.

The species, which we are presently to examine, is one of those which is remarkable from the circumstance, that the female is furnished with a real pouch for the reception of her young, in some other species there is a mere folding of the skin for the same purpose. Our subject is the.

COMMON OPOSSUM. (*Didelphis Virginiana.*)

This interesting animal has long furnished a subject of admiration and discussion to the naturalists, both of Europe and America, as regards the peculiarities of its sexual intercourse, gestation, and parturition. The subject is indeed still involved in considerable obscurity. On the first discovery of the animals of this class, the surprise excited in the scientific world was, that they should be provided with an abdominal pouch, which is their characteristic distinction, and into which the parent was observed to collect her young, as for protection. The astonishment became still greater, when upon more minute examination it was found that the scarcely as yet perceptible fœtuses were attached to the teat enclosed within this pouch, and that it was in that situation they attained their complete development. At the time when these observations were made, they were deemed sufficient, to induce naturalists of the highest standing to conclude, that this pouch was the true uterus of the animal, in which all the mystery of generation was carried on. But, it might be thought, that since that period, and now that physiological science has made so much progress, the generation of didelphous animals ought to be perfectly known, at least with respect to its leading phenomena. This, however, is not the case. And, what is perhaps still more surprising, no naturalist has been found, either in America, or in New Holland, or in the Molluca islands—the countries which these animals inhabit—placed under such favourable circumstances, as to enable him to detect nature, as it were upon the fact, and to withdraw the curtain which still conceals the mysterious operation by which these singular animals are reproduced.

A distinguished naturalist of our own country, Dr. Barton, observed, that, at a certain period, a female opossum, having thrown out, through the organs of generation, not a fœtus but a sort of glutinous ova, weighing about one grain each, appeared to transfer them by a process which he did not discover into the abdominal pouch, when they affixed themselves to the teats of the mother until their full development. In 1783, the count D'Aboville published nearly similar observations. From these facts, Dr. Barton concluded that the didelphous animals have two distinct gestations; one interior, which he supposed to last twenty-two or twenty-six days; the other *marsupial*, or belonging to the pouch.

Now, this unusual development of the fœtus naturally led to the supposition of other no less remarkable physiological anomalies; for example, it was announced by those who had examined these animals, that their fœtuses were deprived of the umbilical cords, veins, or arteries; and in fact destitute of all the characteristic conditions belonging to the fœtuses of other mammalia.

Such was the state of this interesting question when Mr. Geofroy de St. Hilaire undertook its examination. In his first memoir upon the subject, he says, that after a careful examination of the generative organs of the didelphis, he cannot discover any thing different in them from what belongs to the ovulipari in general; for the fallopian portions of their oviducts being very short, the ova are not secured by a single matrix closed at the mouth, and are consequently thrown out instead of passing immediately into a state of incubation. Granting, however, that this ejection takes place only after the act of fecundation, by which it is probably determined, we must admit that this opinion is favoured only by an anatomical inspection of the parts; but has not yet been confirmed by actual observation. So that the ova, instead of attaching themselves to the sides of the uterus, as is the case in mammiferous animals generally, abandon the uterus to attach themselves to the pouch, the only difference being then in fact, as regards their place of insertion.

But after the embryo comes the fœtal state properly speaking, which is no less singular and wonderful. The young animal adheres by its mouth to the teat of the mother; and, there, without leaving her, enjoys all the important functions of animal life—digestion, nutrition, and respiration. Its organs are so accommodated that these functions take place simultaneously; and, accordingly Mr. Geofroy has shewn, that the larynx, which is terminated by a trumpet shaped neck, is affixed to the roof of the palate; and, that the air entering by the nostrils which are very much distended, passes through this duct, at the same time that a suction takes place to fill the mouth and the pharynx with milk.

When Mr. Geofroy published his first memoir, he had only a few subjects upon which he could make observations, and these being rather advanced towards maturity, he could not determine, with precision, by what means the embryo derived its nutrition in the pouch: whether it was by a real placenta, or by means of a simply organized vascular system. Having since received three fœtuses of the *Didelphis Virginiana*, he has had occasion to add the following remarks which were published in the "Annales des Sciences Naturelles."

These animals, the length of which was five lines from the mouth to the origin of the tail, had been taken from the mother, by Dr. Barton, some time before their introduction into the pouch. Two young males were observed to have an umbilical opening, which, in proportion to the size of the animal, was large. The observations were made upon the males, in preference, with a view of anticipating the objections that might be started, namely, that the observer had mistaken the opening of the pouch of a female for this vestige of the umbilicus. The males were also found provided with a scrotum, below these traces of the umbilicus.

The figured placenta which accompanies the memoir of Mr. Geofroy shows that it is deprived of an umbilical cord. It is, as it were sessile and strewed with a number of papillæ. The question here suggests itself; whether these papillæ are not the vestiges of the organs for suckling? or, whether they be not the cicatrices of the umbilicus, the placenta and cord of which have become withered? These questions can only be answered satisfactorily by subsequent researches, and no fact in natural history opens a more interesting field of inquiry to the American naturalist. It follows, however, from the preceding observations that this genus of animals must be held to belong to the mammiferous class; since we perceive at the commencement of life, all the essential parts, upon which is to depend hereafter, the organic development constituting the classical distinction of the mammalia. The same conditions also belong to these animals, as regards the order of the various transformations of the ovum, embryo, and fœtus. These three modifications of the genital product require three distinct locations, which, in the case of ordinary animals, are provided for within the sexual organ; but, in respect to the marsupial animals, they are different, although, as in the common animals, they are placed in a contiguous series. The ovum and the embryo are formed and developed within the sexual organ, and the fœtus is developed without. In common animals, the matrix is the third station, in which the fœtus is incubated and developed. In the animals we are considering, the pouch is this third station. The difference, therefore, consists solely in the fœtal locality. We give the name of matrix or uterus in one case, to what, in another, is denominated the *pouch*.

We shall now proceed to state those facts in the natural history of the opossum, which probably will furnish matter of more interest to the general reader. When the female is about to litter, she chooses a place in the thickest bushes, at the foot of some tree, and, aided by the male, collects a quantity of fine grass; which she forms into a sort of rude nest, and in which she produces from twelve to sixteen young ones at a time. If taken young the opossum is readily tamed and becomes very fond of human society, in a great degree relinquishes its nocturnal habits, and grows even troublesome from its familiarity. "We have had one tamed," says Dr. Godman, "which would follow the inmates of the house with great assiduity, and complain by a whining noise when left alone. As it grew older it became mischievous from its restless curiosity, and there seemed to be no possibility of devising any contrivance effectually to secure it."

The chief haunts of the opossum are thick forests, and their dens are generally in the hollows of decayed trees, where they pass the day asleep, and sally forth mostly after night fall to seek for food. They are occasionally seen out during day light, especially when they have young ones of considerable size, too large to be carried in their pouch. The female then exhibits a very singular appearance, toiling along with her twelve or sixteen cubs nearly of the size of rats, each with a turn of his tail around the root of the mother's, and clinging on her back and sides with the paws, head and mouth. This circumstance was thought by some naturalists distinctive of another species, hence called *dorsigera*, but it is equally true of the species we are now describing. It is exceedingly curious and interesting to see the young, when the mother is at rest, take refuge in the pouch, whence one or two of them may occasionally be seen peeping out, with an air of great comfort and satisfaction. The mother in this condition, or at any time in defence of her young, will make battle, biting with much keenness and severity, for which her long canine teeth are well suited.

The food of the opossum varies very much according to circumstances. It preys upon birds, various small quadrupeds, eggs, and no doubt occasionally upon insects. The poultry yards are sometimes visited and much havoc committed by this animal, as, like the raccoon, he is fonder of cutting the throats and sucking the blood of a number of individuals, than of satisfying his hunger by eating the flesh of one. Among the wild fruits the persimmon is a great favourite, and it is generally after this fruit is in perfection that the opossum is killed by the country people for the market. The hunting of the opossum, in truth, is one of the most favourite sports of our country people. They frequently go out at night, with their dogs, after the autumnal frosts have begun and the persimmon fruit is in its most delicious state. As soon as the animal discovers the approach of his enemies, he lies perfectly close to the branch, or places himself snugly in the angle where two limbs separate from each other. The dogs, however, soon announce his presence by their baying, and the hunter ascending the tree discovers the branch upon which the animal is seated, and begins to shake it with great violence to alarm him and cause him to relax his hold. This is soon effected, and the opossum attempting to escape to another limb is pursued immediately, and the shaking is renewed with greater violence, until at length the terrified quadruped allows himself to drop to the ground, where hunters or dogs are prepared to despatch him.

But should the hunter, as frequently happens, be unaccompanied by dogs when the opossum falls to the ground, he does not immediately make his escape, but steals slowly and quietly to a little distance, and then gathering himself into as small a compass as possible, remains as still as if dead. Should there be any quantity of grass or underwood near the tree, this apparently trifling circumstance is frequently sufficient to secure the animal's escape; for under this, he conceals himself, and it is difficult by moonlight or in the shadow of a tree to discover him; if the hunter has not carefully observed the spot where the animal fell, his labour is often in vain. After remaining in this apparently lifeless condition for a considerable time, or so long as any noise indicative of danger can be heard, the opossum slowly unfolds himself, and creeping as slowly as possible upon the ground attempts to sneak off unperceived. Upon a shout from his pursuer, he immediately renews his death-like attitude and stillness. Even when approached, moved or handled, he is still seemingly dead, and might deceive any one not accustomed to its actions. This feigning is repeated as often as opportunity is allowed him of attempting to escape, and is so well known by the country folks, as to have long since given origin to a common saying among them. Thus, if any one is thought by them to act deceitfully, or wishes to appear what he is not, they say, that "he is playing 'possum."

The opossum is a nocturnal and timid animal, depending more on cunning than strength for his safety. His motions are slow, and his walk when on the ground entirely plantigrade, which gives an appearance of clumsiness to his movements. When on the branches of trees he moves with much greater ease, and with perfect security from sudden gusts of winds; even where his weight is sufficient to break the limb on which he rests, there is no danger of his falling to the earth, unless when on the lowest branch, as he can certainly catch and securely cling to the smallest intervening twigs, either with his hands or the extremity of his tail. This latter organ is always employed by the animal while on the smaller branches of trees, as if to guard against such an occurrence, and it is very useful in aiding him to collect his food, by enabling him to suspend himself from a branch above, while robbing a bird's nest of its eggs, or gathering fruits. An opossum, it is said, can cling by his *feet-hands* to a smooth silk handkerchief or a silk dress, with great security, and climb up by the same. In like manner he can ascend by a skein of silk, or even a few threads. There are other very interesting particulars in the natural history of the opossum, which we have not room to detail. But, reverting to the subject of his sexual peculiarities, we may state, that it is very desirable our naturalists should continue their researches; and by a patient and vigilant observation of the nature of this animal, at length remove the obscurity that still hangs about it.

There are seventeen species of this animal, described by naturalists, and Mr. G. Cuvier has pointed out another, which is found only in a fossil state, occurring in the quarries of Montmartre, near Paris.

The species are as follows:

1. *The Virginian opossum.* Didelphis Virginiana. Shaw. Godman's American Nat. Hist. Vol. 2, page 7.
2. *The Gamba,* D. Azaræ. Screb. Temm.
3. *The Crab-eater,* D. Cancrivora. L.
4. *The Quica,* D. Quica. Temm
5. ————, D. Myosuros. Temm.
6. *The opossum.* D. opossum, L. Desm.
7. *The Philander,* D. philander, Temm.
8. *The Ash-coloured opossum.* D. Cinerea, P. de Newvied.
9. *The dorsal opossum.* D. dorsigera. L.
10. *The Marmose.* D. Musina. Desm.
11. *The Touan.* D. tricolor, Geoff.
12. *The naked tail* O. D. Medicana, Geoff.
13. ————————, D. Brachinsa, Gm.
14. *The thick tail* O. D. Crassicaudata. Desm.
15. ————————, D. Cayopollin, L. Desm.
16. *The wooly* O. D. Lanigera, Desm.
17. *The dwarf* O. D. pusilla, Desm.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 23, 1830.

☞ Our agricultural friends will find some interesting intelligence in the foreign news. We think the prospect of the foreign market, especially for cotton, decidedly favorable; as would also be that of the flour and grain, had the navigation of the continent been fairly open, that the measure of the supply thence could have been estimated; as it is, further accounts must be waited for.

LATEST FOREIGN NEWS.

By a succession of very short passages, we have English dates to the 1st April.

THE CORN LAWS.—Lord King brought forward his proposition for a repeal of the corn laws, on the 29th of March. The principle upon which he proceeded in an able speech, was, that all regulations which tend to restrict or prohibit the importation of any foreign commodity are both impolitic and unjust. It is impolitic because it tends to impede the exportation of British manufactures in exchange for imports, and it is unjust to make the laboring and middling classes pay 50 per cent. more for the first necessaries of life, in order to give a bonus to the landed interest. The Duke of Wellington, in opposing the resolutions, took occasion to remark, that within the last two years, more than 8,000,000 quarters of foreign and Irish grain had been imported into England. The resolutions were negatived, without a division. The Morning Chronicle denounces the speech of the Premier on this occasion, as being "narrow and unstatesmanlike."

From Paris papers of the 27th March we learn, the expedition against Algiers under Gen. Bourmont, was expected to be ready by the 15th. The Dauphin would proceed to Toulon to superintend the embarkation of the troops.—The French will probably meet a warm reception, as the Dey's fortresses have been rendered impregnable by European engineers. His army of observation consists of 85,000 men, 30,000 drilled in European tactics. The Algerines it is said were full of spirits, and speak of the conduct of the Turks at Acra as proof of their ability to cope with the sabre against the bayonet, with any troops. The Dey says in case of attack he will send the women into the interior, take in two years provisions into the city, and defy the whole power of France.

ENGLISH MARKETS.

Extract of a letter from Liverpool, 22d March.

The supply of cotton to this port continues very extensive, amounting in the last 3 weeks to 68,000 bales; whilst the sales in the same time exceed 61,000 bales, of which only 6000 are to speculators. Prices generally rate 3-8 for common qualities of American descriptions, and ¼ for good, above the currency at the close of last month.

As compared with this period of last year, the supply to the Kingdom presents an increase from the U. S. of 10,500 bales; but from other quarters there is a falling off to the amount of 6,400. In the export there is a decrease of 7000 bales. And the stock, as compared with the 1st January, presents an increase of 24,000 bales in U. S. descriptions, but in other kinds a decrease of 12,000; and it is computed that the trade now hold 20,000 bales more than on 1st January.

With regard to the future state of the market, it may be observed, not only that the extensive purchases in face of such heavy arrivals bear evidence of a good opinion being entertained by the manufacturers; but that, from every account, their business (with the exception of yarns from the Continent) is now greater than it ever has been; and at the same time the advance attained in the scale of their goods is fully equal to what they have given for the raw material. Holding, however, so much cotton as they now do, it can hardly be expected that for some weeks to come, their purchases here will continue on as great a scale as they have been of late; and in that event, unless speculators come forward, our market would decline ¼d or so; but any immediate reduction beyond that is not very likely—as owing to the favorable change of opinion many persons would now be found willing to invest in the article, if prices should recede to the rates current at the close of last month. Of the probable state of things three months hence we do not pretend to offer opinion, it being entirely dependent on the extent of our supply from the United States, and of which you can best judge on the spot.

Liverpool, March 25.—Contrary to our expectation, Cotton has been in greater demand than ever this week. Yesterday 6000 bales were sold at 1-8 advance on last week's prices. The accounts from Manchestor are most encouraging, and many people think the market may go up ½d more before many weeks are over. Flour has become a favorite article, and 10,000 barrels sold last week on speculation at 26s a 28s.

Extract of another letter dated March 25.

We have had a long continuance of westerly winds, and no vessels have left this port for the last fortnight.

The cotton market, notwithstanding heavy arrivals, is very brisk, and prices are advancing very steadily. Yesterday about 6000 bales were sold, and the advance this week is ½d per lb. Uplands may be quoted 6 5-8d to 7d, and a few bales, the choicest lot imported this season, have brought 7½d. New Orleans 6¾ to 7¾d, but principally at 7d to 7½d, and very fine 8d. Alabama and Mobile 6¼ to 7d. There is to be a sale by auction to-morrow of 500 bales Sea islands, which will show the state of the market for this description. At present they are dull, selling principally at 13d a 14d. The sales of cotton in the last five weeks have been 100,000 bales, and as dealers and spinners are well stocked, they might keep out of the market some time, if prices were to advance materially; but the improved state of trade leads to the opinion that our present quotations will be fully maintained.

The duty on Flour has fallen to 17s 2d per brl. and will continue to decline for some weeks.—There is a good speculation offered at 27s and 28s per brl.

The London Times of the 30th says "nearly all the country letters received this morning speak of a growing improvement in the manufacturing districts, and the gloom which lately prevailed respecting the state of trade in the city has almost wholly disappeared."

London, March 30.

In the Cotton and Wool Market, business is doing to an increased amount.

Liverpool, April 1.

The sales of Cotton last week, (including those at public auction) amounted to 24,240 bales, viz. 200 Sea Island, at 13¼ a 16d; 90 Stained, at 7 a 9½; 8000 Upland, at 6 3-8 a 7½; 6800 Orleans, 6760 at 6 5-8 a 8¼d; 40 at 9d; 1120 Alabama, at 6½ a 7¾d; 6930 Brazil and other foreign sorts.

At auction the 28th, 300 S. Islands, at 14 to 16¾d; 150 do stained 7 to 12¾.

The demand throughout the week was steady, and a further improvement of 1-3 per lb. on prices of all descriptions was readily obtained; from the limited stock of Uplands and comparatively high prices asked, buyers turned more attention to Orleans, the sales in which were more weighty than for some time past. The Sea Islands offered at auction brought prices fully as high as the preceding business by private, but nearly one half were withdrawn, and stained sold at higher rates, owing to the trifling quantity now in market. About 1000 American and 600 Brazil were taken on speculation during the week, and the import in same period was 26,000 bales,—since the 1st January the supplies for this port amount to 182,250, against 156,750 to the same period last year; from the United States the increase is 23,500 bales.

Thus far this week, the demand for cotton has been languid, and consumers are endeavouring to purchase on lower terms than last week; the sales for five days past are computed at 11,000 bales.

Flaxseed—600 hhds. were sold nearly all at 61s per hhd.—The Grain Market was very lively last week, and an advance of 2s a 3s per qr. was realised for Wheat, but this week prices have given way 1s a 2s per qr. and the transactions moderate. Flour in bond continues to be purchased freely, considerable sales have been made for the articles to arrive, at 27s a 27s 6d, and yesterday 30s per brl. was paid for 1800 brls. The buyers at present offer 29s per brl. Turpentine—411 brls. of superior quality brought 11s 4½d per cwt. Cloverseed—About 130 casks of new brought 110s a 115 per hundred weight.

Tobacco—The sales last month were, 624 hhds. say 328 Virginia leaf, 210 stemmed, 32 Kentucky leaf and 54 stemmed—nearly the whole have been taken for Ireland and home consumption, and in prices there is no change. Our present stock consists of 5750 hhds. against 7770 on the 1st April last year.

Liverpool, March 31.—The sales of cotton to-day are 500 Orleans at 6½ a 7½; 3500 Uplands and Alabamas, at 6 5-8 to 7 1-8.—*Liv. paper.*

London Corn Exchange, March 31.—The arrivals this week have been plentiful, and many of the samples remained unsold at the close of Monday's market, caused a reduction on that day of full 2s. per quarter in wheat and barley. Oats having met with but little demand also received a reduction of two shillings per quarter. To-day trade is very dull, and Monday's reduced prices can scarcely be maintained. No alteration in flour.

A letter from London, of March 30th says—"The grain and flour markets look well. American flour is worth 29 to 30s. per barrel."—The corn exchange report, however, represents the market as dull at a decline of 2s. per quarter on wheat, oats and barley.

Prices Current in Boston, April 16.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a —— No. 2, 6.75 a —— *Butter*, inspected, No. 1, new, lb. .10 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 4.75 a 5.00; Genesee, 5.00 a 5.50; Rye, best, 3.00 a 3.87. *Grain*, Corn, bu. .50 a 55; Rye, .65 a .70; Barley .62; Oats .35 a .40. *Hogs'-Lard*, 1st sort, new, lb. .7 a .8. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.50 a ——; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 9 a 10; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .45 a .60; do. do unwashed, .25 a .40; do. three-fourths, washed, .37 a .45, do. half blood, .35 a .38; do. quarter, washed, .30 a .33; Native, washed .30 a .33; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, April 17.

Bees-wax, yellow .20 a 23. *Cotton*, New Orleans .10 a .12½; Upland, .8¾ a .11; Alabama, .9 a .12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .14 a .18. *Flax*, American, 8 a 9. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 5.00 a 5.12 Canal 5.25 a 5.62; Balt. Howard st. 5.37 a 5 50; Richmond city mills, -—— country, 5 a 5.12; Alexand'a, 5.00 a 5.12; Fredericksburg 5.00 a —— Petersburg, 5.00 a —— Rye Flour, —— a 3.25; Indian Meal, per bbl. 2.75 a 2.87; per hd 12.25 a 12.50. *Grain*, Wheat, North, 1.06; Virginia, 90 a ——; Rye, North, 62 a 63; Corn, Yel. Nor. .50 a 52; Barley, 68 a 70. Oats, South and North, .30 a .35; Peas, white, dry, 7 bu. 5. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.75 a 9.50; prime 5.75 a 6.25; cargo ——a —— Butter, N. York, 12 a 16; shipping, .6 a 10; Lard, .5 a .6; Pork, mess 12.00 a 12.75; prime 9 a 9.50

SEED CORN.

Observing various communications in the American Farmer* from Agriculturists of high standing, on the advantage of choosing seed corn from stalks bearing two or more ears, I was induced last fall to make such a selection from a field of the yellow gourd seed, which is deposited at the store of Sinclair & Moore, for sale.

ROBERT SINCLAIR,
Clairmont Nursery.

* See American Farmer, vol. 2, page 31, communication from Col. Taylor.

Do.	do.	vol. 3, pages 216, 253, Wm. Cook.
Do.	do.	vol. 8, page 298, W. B. Seabrook.
Do.	do.	vol. 8, page 50, Joseph Cooper.

4th mo. 21, 1830.

ALMANAC.

1830. April.	Sun. Rises.	Sun. Sets.	Length of days.	Moon. sets.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 24	5 14	6 46	13 32	8 43
Sunday,...... 25	5 13	6 47	13 34	9 50
Monday,..... 26	5 12	6 48	13 36	10 45
Tuesday,.... 27	5 11	6 49	13 38	11 45
Wednesday, 28	5 10	6 50	13 40	morn.
Thursday,... 29	5 9	6 51	13 42	0 31
Friday,....... 30	5 8	6 52	13 44	1 15

Moon—First Quarter, 30, 1h. 35m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—The favourable accounts from Europe, and the small quantity coming in, have caused an advance in the price of flour; besides, the quantity expected from the Susquehanna has fallen considerably short of the estimate. A few sales of Howard street flour were made on Monday at $5, but dealers generally prefer holding on to selling at that price, and purchasers are backward in coming forward at the advanced rates. Our quotation may therefore be considered nominal. The wagon price is $4.62½ a $4.75. For best white wheat, such as is required for Ellicott's best family flour, our highest quotations might be obtained. There is little change in any thing else.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 278 hhds Maryland, 29 hhds Ohio, 9 hhds Ky. 2 hhds Vir. and 2 hhds Pa. total 320 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard st. 5.00 *a* —— city mills, 4.75 *a* 5.00. Susquehanna, —— Corn Meal, bbl. 2.25—Grain, best red wheat, .65 *a* .93; best white do. .95 *a* 1.05. ordinary to good, 80 *a* 85—Corn, white, .36 *a* 37—yellow .40 *a* ——Rye, .55 *a* .57½—Oats, .30 *a* —— Beans, .90 *a* 1.00—Peas, .65—Clover seed, 3.75 *a* 4. —Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, — *a* ——Flaxseed, 1.08 *a* ——Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .20 *a* 20½; in bbls. 22½ *a* ——Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140-water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.25 *a* —— No. 2, 6.00—No. 3, 3.00 *a* 3.75——Bacon, hams, Balt. cured, .9 *a* .10—Feathers, .29 *a* 30—Plaster Paris, cargo price per ton, 3.75 *a* 4.00; ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.75 *a* 5.50—Pine Wood, by the vessel load, 2.00 *a* 2.50—Oak Wood, 2.87½—Hickory, 3.75.

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Printed every Friday, at Five Dollars per annum, for
JOHN S. SKINNER, Editor, by John D. Toy.

AGRICULTURE.

Introduction of New Plants—Trees, &c.

[There is no better opportunity for the exercise of good taste and sound judgment, than is offered to those whose fortunes lead them to travel, or reside for a period, in foreign countries; but those who are thus circumstanced, should bear in mind that judgment is to be indicated by the happy *choice* of the subjects selected for observation; or the products, fabrics, or machines they may select for introduction to their own country. Better would it be for all countries if travellers would have more regard to the *useful* in the productions of art, and the valuable and beautiful in nature, than to the merely wonderful and sublime;—falling monuments, and splendid ruins, of past ages, whether barbarous or refined. How many thousands have travelled to gaze with admiration on the pyramids of Egypt, and the burning crater of Mount Etna, who never dreamed of the good they might perform by half as much of time and money expended in the pursuit of some valuable or elegant art; some labour saving machine, some medicinal plant, some nutritious edible, or tree remarkable for its lasting timber, or delicious fruit?

If monuments were not altogether superfluous since the invention of letters, except for those whom the muse of history will never distinguish, we should say, there would have been more justice and sound policy in erecting one to the needle maker from India in 1545, or to Admiral Drake for the introduction of potatoes in 1610, than to some successful profligates for whom millions have been expended:

"The whole amount of their enormous fame,
A tale, that blends their glory with their shame."

We have had many occasions to bring to notice the public spirit displayed in the introduction of foreign grains, plants, and animals of value by the *officers of our navy;* men whose superiors as a corps never existed, who for the love of glory and of their country have defied the dangers of "the battle and the breeze," who have fought and conquered the boasted flag of St. George, and pursued and extirpated pirates in their haunts of murder and pestilence. Men whose valour and self devotion have gained the applause of the world, and the gratitude of their country, whilst they are *denied rank* and *degraded, only by their own government!*

It is gratifying to see by the annexed extract which has been kindly furnished by the secretary of the treasury for publication in the American Farmer, that our consuls continue to be attentive to the recommendations of that department, though no provision has been, or perhaps can be made for the object. To inquiring and liberal minds like Mr. Perrine's, however, it is easy to perceive that much trouble may be compensated by the pleasure of doing good *for its own* sake.]

Extract of a letter from Henry Perrine, Esq. Consul of the U. S. at Campeche, to the Secretary of the Treasury of the United States, dated,

Consulate U. S. A. Campeche, Jan. 1st, 1830.

"During the past year the subscriber visited the *Laguna de Terminos,* principally on account of the logwood and merida, and of the Sisal hemp. He is thus enabled to confirm the information already communicated relative to the tree and the plant, as well as his opinion of the transcendant importance of the latter. Details are reserved until he ascertains how it is affected by the winter of the U. S., as he has had the pleasure to learn, that of the plants sent by him at various periods to Doctor Samuel L. Mitchill of New York, and Domingo Fleitus, Esq. of New Orleans, several varieties of this southern hemp, (or *Agave Americana*) are thriving under their care in both cities notwithstanding the difference of latitude and climate. Four plants of the celebrated *Magney 'de Pulque,'* from the vicinity of Mexico, are now flourishing in this city. This variety of the Agave Americana, so noted for the *drink* it affords, will therefore probably bear to be transplanted to our southern states, with the others, whose principal value resides in their *fibres*—an opinion in which Dr. Mitchill coincides.

"As the subscriber has not heard of the fate of the last young logwood trees sent to New Orleans, during the autumn, it is believed that his often repeated attempts to transmit the living *Hæmatoxylon Campechianum,* have all failed—the more to be regretted, as another winter must pass to test its capacity for existence in all temperatures of our south western shores.

"The '*Ramon*' is a flourishing tree in the driest seasons, whose leaves and branches are here the universal substitute for grass and cane as food for domestic animals—the greater number of which have no other means of subsistence. It is conceived to be, at the least, as worthy as the logwood of the experiment of transplanting to our coasts on the gulf of Mexico. Being both useful and ornamental, it abounds in the gardens and lots of every town and village. The produce of three acres may maintain a small family. A newspaper paragraph, relating to the scarcity of food for animals at Mobile and Pensacola during the last season, has prompted this brief notice of the '*Ramon.*'

"Although the subscriber's attention was directed, by the treasury circular, to vegetables only, he begs leave to recommend the introduction into the United States of the *stingless bees* of Yucatan, on account of the peculiarities of their wax and honey, as well as the facility of rearing them."

(From Loudon's Encyclopædia of Agriculture.)

CULTIVATION OF PLANTS USED FOR DYEING.

Madder.—*Rubia tinctorum,* L. *Tetran. Monog.* L. and *Rubiaceæ,* J. *Garance,* Fr.; *Färberröthe,* Ger.; *Rubia,* Span.; and *Robia,* Ital.

The dyer's madder has a perennial root, and an annual stalk. The root is composed of many long, thick, succulent fibres, almost as large as a man's little finger; these are joined at the top in a head, like the roots of asparagus, and strike very deep into the ground, being sometimes more than three feet in length. From the upper part (or head of the root) come out many side roots, which extend just under the surface of the ground to a great distance, whereby it propagates very fast; for these send up a great number of shoots, which, if carefully taken off in the spring soon after they are above ground, become so many plants. It is a native of the south of Europe, flowers in June, and seeds soon afterwards; but by them it is never propagated. Madder is mentioned by the Greeks as a medical plant, but when it was first used in dyeing is uncertain. It has been cultivated in Holland and Flanders, and other parts of the continent for that purpose for many centuries, and has been tried in this country, but unless the importation of the root from the continent were entirely prevented, it will not answer. Its culture has been attempted at different times when our commerce with the Dutch was interrupted, or when they raised the price of the article exorbitantly high. At present it may be imported not only from Holland, but from France, Italy and Turkey.

The soils most suited to the cultivation of madder, are those of the deep fertile sandy loams that are not retentive of moisture, and which have a considerable portion of vegetable matter in their composition. It may also be grown on the more light descriptions of soil that have sufficient depth, and which are in a proper state of fertility.

The preparation of the soil may either consist in trench ploughings, lengthways and across, with pronged stirrings, so as to bring it to a fine tilth; or, what will often be found preferable, by one trenching two feet deep by manual labor.

The sets or plants are best obtained from the runners, or surface-roots of the old plants. These being taken up, are to be cut into lengths of from six to twelve inches, according to the scarcity or abundance of runners. Sets of one inch will grow if they have an eye or bud, and some fibres, but their progress will be injuriously slow for want of maternal nourishment. Sets may also be procured by sowing the seeds in fine light earth a year before they are wanted, and then transplanting them; or sets of an inch may be planted one year in a garden, and then removed to a field plantation.

The season of planting is commonly May or June, and the manner is generally in rows nine or ten inches asunder, and five or six inches apart in the rows. Some plant promiscuously in beds with intervals between, out of which earth is thrown in the lazy-bed manner of growing potatoes; but this is unnecessary, as it is not the surface, but the descending roots which are used by the dyer.

The operation of planting is generally done by the dibber, but some ley-plant them by the aid of the plough. By this mode the ground is ploughed over with a shallow furrow, and in the course of the operation the sets are deposited in each furrow, leaning on and pressed against the furrow slice. This, however, is a bad mode, as there is no opportunity of firming the plants at the roots, and some of the sets are apt to be buried, and others not sufficiently covered.

The after-culture consists in hoeing and weeding with stirring by pronged hoes, either of the horse or hand kind. Some earth up, but this is unnecessary, and even injurious, as tearing the surface-roots.

The madder-crop is taken at the end of the third autumn after planting, and generally in the month of October. By far the best mode is that of trenching over the ground, which not only clears it effectually, but fits it at once for another crop. But where madder has been grown on land prepared by the plough, that implement may be used in removing it. Previously to trenching, the haulm may be removed with an old scythe, and carted to the farmery to be used as litter to spread in the straw-yards.

Drying the roots is the next process, which, in very fine seasons, may sometimes be effected on the soil, by simply laying the plants on it as they are taken up; but in most seasons they require to be dried on a kiln, like that used for malt or hops. They are dried till they become brittle, and then packed up in bags for sale to the dyer.

The produce from the root of this plant is different according to the difference of the soil, but mostly from ten to fifteen or twenty hundred weight where they are suitable to its cultivation.

In judging of the quality of madder-roots, the best is that which, on being broken in two, has a brightish red or purplish appearance, without any yellow cast being exhibited.

The use of madder-roots is chiefly in dyeing and calico-printing. The haulm which accumulates on the surface of the field, in the course of three years, may be carted to the farm-yard, and fermented along with horse-dung. It has the singular property of dyeing the horns of the animals who eat it of a red color.

Madder-seed in abundance may be collected from the plants in the September of the second and third years; but it is never so propagated.

Madder is sometimes blighted; but in general it has few diseases.

Woad.—*Isatis tinctoria,* L. *Tetrad. Siliq.* L. and *Cruciferæ,* J. *Pastel,* Fr.; *Waid,* Ger.; *Gualda,* Span.; and *Guade,* Ital.

The common woad is a biennial plant with a fusiform fibrous root, and smooth branchy stem rising from three to five feet in height. It is a native, or naturalized in England, flowers from May to July, and its seeds are ripe from July to September. It has been cultivated in France for an unknown length of time, and was introduced to England in 1582, and grown with success. It is now chiefly cultivated in Lincolnshire, where it is a common practice to take rich flat tracts near rivers, at a high price, for the purpose of growing it for two or four years. Those who engage in this sort of culture, form a sort of colony, and move from place to place as they complete their engagements. It is sometimes, however, grown by stationary farmers. The leaves are the parts of the plant used, and it is considered as a severe crop.

There is a *variety* of woad called the dalmatian, described by Miller, and also a wild sort, but only the common is cultivated in this country.

The soil for woad should be deep and perfectly fresh, such as those of the rich, mellow, loamy, and deep vegetable kind. Where this culture is carried to a considerable degree of perfection, as in Lincolnshire, the deep, rich, putrid, alluvial soils on the flat tracts extending upon the borders of the large rivers, are chiefly employed for the growth of this sort of crop; and it has been shown by repeated trials that it answers most perfectly when they are broken up for it immediately from a state of sward.

The preparation of the soil, when woad is to be grown on grass land, may either be effected by deep ploughings, with the aid of the winter's frost; cross ploughing and harrowing in spring; by deep ploughing and harrowing in spring; by paring and burning; or by trench ploughing, or spade trenching. The first mode appears the worst, as it is next to impossible to reduce old turf in one year, and even if this is done, the danger from the grub and wire-worm, is a sufficient argument against it. By ploughing deep in February, and soon afterwards sowing, the plants may germinate before the grub is able to rise to the surface; by trench ploughing, the same purpose will be more effectually obtained; and, best of all, by spade trenching. But a method which is equally effectual with the first, more expeditious, and which has a superiority over it in more completely destroying grubs, insects, and other vermin, which are apt to feed on the plants in their early growth, is that of paring and burning. This is, however, chiefly practised where the sward is rough and abounds with rushes, sedge, and other plants of the coarse kind, but might be had recourse to on others, with benefit.

The time of sowing may be extended from February to July. Early sowing, however is to be preferred, as in that case the plants come up stronger and afford more produce the first season.

The mode of sowing is generally broad-cast, but the plant might be most advantageously grown in rows and cultivated with the horse-hoe. The rows may be nine inches or a foot apart, and the seed deposited two inches in depth. The quantity of seed for the broad-cast method is five or six pounds to the acre; for the drill mode, two pounds are more than sufficient, the seed being smaller than that of the turnip. New seed, where it can be procured, should always be sown in preference to such as has been kept for some time; but when of the latter kind, it should be steeped for some time before it is put into the ground.

The after-culture of the woad consists in hoeing, thinning, prong-stirring, and weeding, which operations may be practised by hand or horse tools. as in the culture of teazle.

In respect to the business of gathering the crops with the spring sown ones, the leaves will generally be ready to be gathered towards the latter end of June or beginning of July, according to the nature of the soil, season, and climate; but for those put in at a later period in the summer, they are often fit to be gathered earlier. This business should, however, constantly be executed as soon as the leaves are fully grown, while they retain their perfect green color and are highly succulent, as when they are let remain till they begin to turn pale, much of their goodness is said to be expended, and they become less in quantity, and of an inferior quality for the purposes of the dyer. In the execution of this sort of business, a number of baskets are usually provided in proportion to the extent of the crop, into which the leaves are thrown as they are taken from the plants, which is effected by the hand, by grasping them firmly and giving them a sort of a sudden twist. In favorable seasons, where the soils are rich, the plants will often rise to the height of eight or ten inches; but in other circumstances they seldom attain more than four or five; and where the lands are well managed in the culture of the plants, they will often afford two or three gatherings, but the best cultivators seldom take more than two, which are sometimes mixed together in the manufacturing of them. It is necessary, that the after croppings, when they are taken, are constantly kept separate from the others, as they would injure the whole if blended together, and considerably diminish the value of the produce. It is said that the best method, where a third cropping is either wholly or partially made, is to keep it separate, forming it into an inferior kind of woad.

The produce is mostly from about a ton to a ton and a half of green leaves. The price varies considerably; but for woad of the prime quality, it is often from twenty-five to thirty pounds the ton, and for that of an inferior quality six or seven, and sometimes much more.

To prepare it for the dyer, it is bruised by machinery to press the watery part; it is afterwards formed into balls and fermented, re ground, and fermented in vats, where it is evaporated into cakes in the manner of indigo. The haulm is burned for manure or spread over the straw-yard, to be fermented along with straw-dung.

The use of woad in dyeing, is as a basis for the black and other colors.

To save seed, leave some of the plants undenuded of their leaves the second year, and when it is ripe in July or August, treat it like turnip-seed.

The only diseases to which the woad is liable, are the mildew and rust; when young it is often attacked by the fly, and obliged to be re-sown, and this even on winter-ploughed grass lands more than once.

WELD *or Dyer's Weed.—Reseda luteola,* L. *Dodec. Trig.* L. and *Capparideæ,* J. *Gaude,* FR.; *Waud,* Ger.

Weld is an imperfect biennial, with small fusiform roots, and a leafy stem from one to three feet in heighth. It is a native of Britain, flowers in June and July, and ripens its seeds in August and September. It is cultivated in a few places in England, and chiefly in Essex, for its spike of flowers and sometimes also for its leaves, both of which are used in dyeing. Its culture may be considered the same as that of woad, only being a smaller plant it is not thinned out to so great a distance. It has this advantage for the farmer over all other coloring plants, that it only requires to be taken up and dried, when it is fit for the dyer. It is, however, an exhausting crop.

Weld will grow on any soil, but fertile loams produce the best crops. In Essex, it is grown on a stiff loam, moderately moist. The soil being brought to a fine tilth, the seed is sown in April or the beginning of May, generally broad-cast. The quantity of seed is from two quarts to a gallon per acre, and it should either be fresh, or if two or three years old, steeped a few days in water previously to being sown. Being a biennial, and no advantage obtained from it the first year, it is sometimes sown with corn crops in the manner of clover, which, when the soil is in a very rich state, may answer, provided also that hoeing, weeding, and stirring take place as soon as the corn crop is cut. The best crops, however, will obviously be the result of drilling and cultivating the crop alone. The drills may be a foot asunder, and the plants thinned to six inches in the row. In the broad-cast mode, it is usual to thin them to six or eight inches distance every way: often when weld succeeds corn crops, it is never either thinned, wed or hoed, but left to itself till the plants are in full blossom.

The crop is taken by pulling up the entire plant, and the proper period for this purpose is when the bloom has been produced the whole length of the stems, and the plants are just beginning to turn of a light or yellowish color; as in the beginning or middle of July in the second year. The plants are usually from one to two feet and a half in height. It is thought by some advantageous to pull it rather early, without waiting for the ripening of the seeds, as by this means there will not only be the greatest proportion of dye, but the land will be left at liberty for the reception of a crop of wheat or turnips; but in this case, a small part must be left solely for the purpose of seed. In the execution of the work the plants are drawn up by the roots in small handfuls, and set up to dry, after each handful has been tied up by one of the stalks, in the number of four together in an erect position against each other. Sometimes they, however, become sufficiently dry by turning without being set up. Aftey they have remained till fully dry, which is mostly effected in the course of a week or two, they are bound up into larger bundles, that contain each sixty handfuls, and which are of the weight of fifty-six pounds each: sixty of these bundles constituting a load. These last, in places where this kind of crop is much grown, are tied up by a string made for the purpose, and sold under the title of weld cord.

The produce of weld depends much on the nature of the season; but from half a load to a load and a half is the quantity most commonly afforded, which is usually sold to the dyers at from five or six to ten or twelve pounds the load, and sometimes considerably more. It is mostly bought by persons who afterwards dispose of it to the dyers occasionally, as they find it convenient. The demand for it is sometimes very little, while at others it is so great as to raise the price to a high degree. It is sometimes gathered green and treated like woad or indigo; but in general the dried herb is used by the dyers in a state of decoction.

The use of weld in dyeing is for giving a yellow color to cotton, woollen, mohair, silk, and linen. Blue cloths are dipped in a decoction of it, which renders them green; and the yellow color of the paint, called Dutch pink, is obtained from weld.

To save seed, select a few of the largest and healthiest plants, and leave them to ripen. The seed is easily separated.

The chief *disease* of weld is the mildew, to which it is very liable when young, and this is one reason that it is often sown with other crops.

WHITE BEEF.

A drover came to market, a few days since, with twenty fine fat oxen. They had all had the same treatment and food, and weighed from 1000 to 1200 lbs. each. A butcher purchased and slaughtered them all in the usual manner. The meat of nineteen of them had the common and uniform appearance; but the *meat* of one was nearly white, so as to require a near view to be distinguished from the fat. The muscular fibres were regular, but fine, the fat abundant, and in its ordinary locations; the bones hard; the kidneys red and healthy; and every part of the animal indicated sound health. A great number of persons purchased pieces of the beef to try, and afterwards pronounced it tender and excellent. The hair of the animal was black.—*Boston Palladium.*

M. Rosier, the author of the *Dictionnaire d'Agriculture,* announces that hemp and flax, after maceration in the earth (the part being watered occasionally,) and careful washing in pure water, are equally fit for manufacture as when prepared in the usual way. The great advantages of the new process are, the absence of all infection, great simplicity and economy, and the deprivation of all the mucilage of the plants.

HORTICULTURE.

(From the Baltimore Gazette.)

CULTURE OF SILK.

Reeling, Twisting, &c.

According to the arrangement I have adopted, the direction for preserving cocoons should have been given in the last number, but were omitted in consequence of the length of that essay.

After clearing the cocoons of the loose *tow*, such as are intended for reeling, and cannot be wound off immediately, must be subjected to some process by which the chrysalis will be killed, to prevent its perforating the cocoon. Heat is most commonly applied. In Europe the modes of its application are various. Some *bake* the cocoons in an oven about half heated for bread; others apply steam, and others expose them to the rays of the sun for several days during the heat of the day. There is danger of scorching the silk in the first mode; of discomposing the fibres, in the second; and of not perfectly accomplishing the object in the third. I have found the following mode preferable to any other, as the object is perfectly effected without danger to the silk. I put the cocoons into a tight tin vessel, with a cover closely fitted; and put this vessel into another a little larger, containing such quantity of water as will nearly fill it when the other is put into it; fire is then applied and the water kept boiling half an hour, or more, according to the size of the vessel and until the cocoons in the inner vessel shall have become as hot as the boiling water. The cocoons are then spread out in a dry room, that whatever moisture there may be, may evaporate. By this mode, the heat can never be raised so high as to injure the silk, and the fibre is not loosened by moisture; on the contrary, much of the natural moisture of the cocoon is dispersed. After this operation, the cocoons are ready for the reel or for sale. All the cocoons that can be reeled in the course of the first week after they are taken from the brush, may be reeled without this operation; and a considerable advantage is gained by thus reeling them, as they unwind much easier than when they have been heated. Cocoons intended for sale, or keeping on hand for future reeling, must be secured against mice and roaches.

To reel the cocoons, is considered the most difficult part of the duties of a domestic silk cultivator. On the first attempt, the reeler is ready to give it up as too difficult and tedious for his skill and patience. It is at this point where all who give up the business stop; thousands of persons in this country have gone thus far, and after a short trial, abandoned the culture of silk in despair. But the difficulty of reeling silk is only in appearance; it is easily overcome, and only requires a little patient perseverance. The extreme delicacy of the fibres, seems to defy the skill of the young reeler to handle and wind them without breaking; and even if he could wind them off, they appear so light and insignificant as to be unworthy of the trouble—he does not recollect that they are like fine particles of gold, and equally reward the patient gleaner. Let the young reeler summon all his patience, and set down to his basin of cocoons with a determination to succeed. Let him not try to make the best silk at first, but to become expert in catching the ends of fibres, and in clearing them from loose silk floating among the cocoons, in combining them, and ascertaining that they will unwind. If he wastes a few pounds of cocoons in this way, it will be no great loss. In a short time he will be able to reel equal to the most expert Piedmontese. Let me, therefore, urge the young silk cultivator to try the experiment before he gives up. A few days, or even weeks, and a few pounds of cocoons, are trifling sacrifices for so great a reward as awaits his success.

These essays are intended of course, for the instruction of farmers and others, to enable them to make silk in a *domestic and small way*, and by no means for large establishments, the proprietors of which will not need my aid. But whether it be on a large or small scale, the reeling, to produce good silk, must be done in the same way and with the same reel. Therefore it will be necessary that the family that undertakes the making of silk, should be provided with a proper reel, and on the Piedmontese principle, which will cost from twelve to twenty dollars. Reels of the proper kind can be obtained in Philadelphia for $12. Good silk, it is true, can be made with the common cotton reel; but it requires great care, and frequent taking off of the skein, as well as other precautions and troubles, which are avoided by the Piedmontese reel. It is necessary that the threads should be crossed on the bars of the reel to prevent their gluing into a mass and thus becoming worthless; also that two threads should be reeled at the same time, and wound round each other several times between the basin and the reel, which makes the thread round and firm. All this is effected by the Piedmontese reel, but cannot be by any other, not on the same principle. I have constructed a reel, which works exactly upon the principle of the Piedmontese, but is more simple in its parts, and works equally as well.—With either of these reels an expert hand can reel a pound of raw silk a day with ease.

A handful of cocoons, having been cleared of all the loose silk and ends, is to be put into a basin provided for the purpose near the reel, which is kept nearly full of hot water. This basin may be set on a small earthen furnace over a few live coals to keep it of the proper heat. The common cooking furnaces are well calculated for the purpose. With a small wisp of clean broom corn the cocoons must be stirred about till the fibres of the cocoons are observed attached to the straw; they are then to be taken in the hand, drawn through the fingers to clear them of motes and loose fibres, and drawn out till they are found to run well, when they are to be passed through the eye of the plate on the reel, and handed to the girl who turns the reel; another thread is to be obtained in the same way, passed through the other eye of the plate and handed to the girl, she then passes these several times round each other like twisting two strings, and separates the ends, passes them through the eyes of the wires on the traversing bar, and attaches them to the reel. The reel is then set in motion, and the attendant at the basin begins to catch the fibres of other cocoons and attach them to the threads alternately, by dexterously throwing the end on the thread as it passes up, to keep the size of the thread equal, for the first set of fibres will be reduced in number and size by breaking and exhausting of cocoons, and must thus be continually replenished. The basin must be kept supplied with cocoons, but in such order that none will have been in the water over ten or fifteen minutes; and the water must be kept of an equable temperature; for if it be too hot, the silk will run off in clusters, and thus become knotty; if too cool the cocoons will be drawn out of the water and the fibres broken—when either of these occur, it is a sign that the water is too hot or too cold, and the remedy must be applied by adding a little cold water and reducing the fire in the first, or boiling water and increasing the fire in the second. Generally, the water is required to be from 150° to 175° of temperature; but never boiling. The most common size of thread, is twenty fibres; for very fine stuffs five fibres are reeled, and even single fibres for some. Let those who learn to reel, however, begin with twenty or thirty, or even fifty, which will be proper for coach-lace floss,—the most profitable kind for American cultivators for some years to come,—and for sewing silk. After learning to reel coarse silk with facility, it will be easy to learn to reel the finer qualities. From the beginning, however, let the young reeler attend strictly to certain rules and precautions, viz: whatever be the number of fibres he begins with, let him keep that number steadily in the thread, that it may be uniform and even; change the water as often as it becomes foul, and always use perfectly clear rain or river water, letting it stand for a time before use, that the sand, if any be in it, may settle before putting it into the basin—he will scarcely be able to reel silk with well or spring water that is *hard;* and generally, let him pay strict attention to *neatness*, avoiding the slightest degree of slovenliness, even though he do not reel so much in a day.—These precautions will add to the value of the silk, and the reeler will soon become habituated to their observance Let him also bear in continual remembrance, that the value of silk is enhanced or depreciated by good or bad reeling very materially. A pound of raw silk may be made, by care and attention in reeling, worth eight dollars; but by careless slovenly reeling it will be reduced to three or four dollars a pound; and when it is considered that a pound of the best reeled silk is only a day's work, and that the same quantity of poor silk cannot be reeled in much less time, the care and attention necessary to make the best will be richly compensated.

When moderate sized skeins are wound on, the reel may be taken from the frame, the silk smoothed over with the hand, and set aside to dry; after which it may be wound into bobbins, doubling it to make the thread as large as is required. If for carriage lace floss, and 25 fibres have been reeled, two threads may be combined, which will make a 50 fibre thread, a very good size for it.—From the bobbins it may be twisted on a common spinning wheel, when a *throwster* is not at hand For carriage lace floss, it should be very partially twisted. For sewing silk, the same operation is necessary, except that it will require a second doubling; three of the threads for carriage lace floss will make very fine sewing silk—they should of course be twisted more than for floss.—For both floss and sewing silk, after the first partial twisting, the skeins must be folded short, by taking one or two turns as in preparing skeins of common yarn for dying, put into some perfectly clear rain or river water, in which a quarter of a pound of good soap to the gallon has been dissolved, and *simmered over a fire* three or four hours, or till the silk is perfectly freed of its gum and becomes white. It must then be taken out, rinsed in hot rain or river water, and then in cold water, in which operation great care must be observed to dip it gently, that the silk may not get tangled. It may then be hung up to dry, after which it may be doubled and twisted for sewing silk, or put up for floss. The silk should never be put up in large skeins, especially floss, as it is apt to tangle. One hundred threads is a good size. If the whole work has been properly done, the silk will be beautifully white, with a rich gloss, and if carriage lace floss, will be worth ten dollars a pound.

There is always a considerable quantity of waste silk, perforated, and imperfect cocoons. All this is easily converted to some useful purpose.—The cocoons may be cut open, the dry shell of the chrysalis taken out, and together with all other waste silk, put into the water and the gum extracted. It is then to be rinsed, dried, picked fine, carded and spun, like flax-tow, and makes most beautiful and durable stockings, mits, gloves, &c.

I have now brought these essays to a conclusion—they are intended for the practical instruction of persons who may wish to enter upon the culture of silk, and many new and valuable improvements calculated to simplify the art, and to be found in no other written work, being entirely my own, will be found in them. If they shall be of any service either to the public or individuals, I shall be amply compensated for writing them. Gideon B. Smith.

Pertinacity of opinion more frequently arises from a partial view of a subject, than from a full comprehension of it, and certainly is not of itself any proof of rectitude of judgment.—*Bishop of Landaff.*

(From the New England Farmer.)

ASPARAGUS.

Among the earliest and most valuable productions; which the opening spring presents for our use is that nutritive and healthy plant asparagus.

It is really a subject of regret, that this should be so universally acknowledged as a great luxury, and on every account be so desirable—and yet not be more invariably had, and conveniently placed near the door of the cultivator for family resort.

There seems to be but one reason that can with any degree of satisfaction be assigned for this, and that is, the supposed intricacy, labor and expense of bringing forward what has been termed an asparagus bed. The fact is, that most works on agriculture, are so loaded with the requisites for a good bed, that it is not to be wondered at that some repugnance is had, and some delay suffered in the undertaking.

It is believed, that in our climate at least, most of the trouble and expense is needless; and that a good and productive bed may be had in so cheap and simple a manner, that many who have been discouraged by the expense as well as the art and mystery of the process, will no longer be so influenced.

But your readers have a right to expect some satisfactory reasons for this undertaking before they engage in it.

The comparative results of several experiments will be stated herein, and some few observations submitted to the good sense of your readers, that they may draw their own conclusions and govern themselves accordingly.

One of my predecessors, in about 1765, from a wish for the convenience of a good asparagus bed, as well as a strong impression of the difficulties of having a good one, set about it in earnest.

By all report, there was trenching or deep digging, paving with bricks at the bottom, a layer of manure low down and much more dug into the soil. This certainly became a good bed, and it was always so considered.

In about 25 years, or 1790, its decay was very observable, and it soon dwindled away to little or nothing.

For some years, the privation was submitted to. But in about 1800, a new bed was made with the same labor and expense, except the paving. This too, proved a good bed. It lasted about the same time with the preceding, and some two or three years since, was allowed to grow to grass.

About 12 years ago, whilst the last mentioned bed was in full bearing, I was led to think that much of the trouble might be avoided in the process and preparation for its culture. A piece of ground was taken on the same farm, of a deep rich soil. After a common corn crop was taken off, the land was ploughed and manured in the usual course. Holes were then dug 12 to 14 inches in depth, and about the same distance apart, and 2 or 3 shovels of compost manure was mixed with a part of the earth. The roots of a year's growth were then inserted at about 6 inches in depth. This bed has flourished, and been thought as productive as any whatever. I, at the same time, with a view of a more full and fair course of experiments, took a piece of land in another place of opposite character, being a thin light soil, and adopted a like course, and the result has been equally favorable. The only difference to be noted, was that the latter was more early in coming forward from the nature of the soil.

However rare it may be, that there is any over cultivation or preparation of soil for any vegetable production, it would seem here to be the case. The old forms appear to have been kept up, and to have discouraged a more general diffusion of this valuable plant.

Doctor Dean, in his husbandry, has somewhat simplified this matter, but not sufficiently. The proposed mode of placing at 6, 8 and 9 inches is quite too near. The duration of 10 or 12 years, is a mistaken one; it lasts with us double that period.

The management of the bed may be given in a very few words. In the fall of the year, it is important to cover it with horse manure; in the spring it should be raked off and the bed lightly forked over so as not to touch the roots.

If the bed from frequent weeding becomes low, it may be raised with dock-mud to advantage. This produces no weeds, while the saline particles are favorable to its growth. Where this cannot be had, any rich loam may be taken. Three years is agreed on as the most eligible period of cutting. No reason is perceived for supposing it a marine plant. The lightness of the hull, containing the seed, often may place it at high water mark where it may thrive well.

I am, &c. J. WELLES.

(From the New York Farmer.)

METHOD FOR DESTROYING THE CURCULIO.

The ravages of the *Curculio* among our smooth skin stone fruit, have excited a deep interest in the friends of horticulture. Many of our finest *plum* trees are unproductive, and with these insects the *nectarine* is a particular favorite. Probably the mountainous parts of the United States are less infested than the open country, as they appeared to have lived on the large *red plum,* and on the hawthorn from time immemorial.

Nicholson's account of the manners of the *Curculio nucum,* or nut weevil (in England) will *nearly* serve for our insects: "The female singles out a *nut*, which she pierces with her proboscis, and then turning round deposites an egg in the cavity; and thus she proceeds till she has deposited in different *nuts* her whole stock of eggs." The object of our Curculio, however, is not to feed on the kernel but on the pulpy part of the fruit; and indeed when the larva happens to pierce the stone of the plum or nectarine, he appears to be frustrated, as the fruit then withers and dries on the tree.

It has long been observed that plum trees growing in frequented lanes, or barn yards, were generally fruitful, while those in secluded situations, as in gardens, were more rarely productive. The late Dr. TILTON has shown that the treading of live stock round the trees made it not only more difficult for the worm to penetrate the ground, but that his escape from the fallen fruit was rendered precarious by the approach of swine eager to convey his habitation and him in a different direction.

It was also stated that the *Curculio* is a timid animal; that the passing of live stock round the tree alarmed him; and we know that the rubbing of swine and cattle, or any sudden jar, causes it instantly to drop to the ground.*

In accordance with these facts, some have kept their hogs among their plum trees; and a friend lately told me *that*, in consequence, *his plum trees had borne double during the last twelve years.*

This plan is much to be recommended among large trees; but well grown and well fed hogs become wanton, and I have several small trees greatly injured both by their teeth, and by their rubbing. Neither will their rooting make amends for the trampling of the ground near small trees in wet weather. I have, therefore, determined to discharge these gentry during summer, and chiefly trust the management of the fruit garden to the geese. Last season, I was much pleased by the activity of these birds, scarcely a fallen plum escaped them, which they swallow without difficulty, and the worm is every moment in danger.

Many trees stand in gardens, however, where neither swine nor geese can be admitted; and in such cases I would suggest the trial of a plan by which I destroyed hundred of these insects. Two large sheets, made of cheap factory cotton, were laid (slightly to overlap) with the tree at the centre. A stroke of the hand for a small tree, or of a mallet for a large one, causes the Curculio instantly to drop on the sheet. The dark brown color of the insects contrasts with the white cloth and may at once be discovered and easily crushed between the finger and thumb. Though it pretends to be inanimate, it will almost imperceptibly slide under the dead blossoms that fall with it, and it then requires care to detect it.

This process is most expeditiously performed by five persons, two to each sheet and one to strike the tree. I have strong hopes from this experiment; and to begin with the dropping of the blossoms, and to visit the trees two or three times a day for several weeks, would probably prevent any serious injury to the crop, and reduce these insects to a scanty remnant.

D. T.

(From the New York Farmer.)

CAPE BROCOLI.

Directions for the cultivation of the Cape Brocoli, extracted from Wilson's Economy of the Kitchen Garden, now in the press.

This is one of our most delicious and valuable vegetable productions. In point of quality, its flowers in this country are, by good judges, I believe, universally allowed at least to equal, if not surpass those of the cauliflower. And what adds so much to its value, is, that its culture is as easy and simple as any common cabbage. It is not many years since it was introduced into this country, and only about seven or eight years since its proper mode of culture was correctly understood.

Much depends upon obtaining the right sort of seed, for it has been pretty well proved by experience that there is no dependence on the success of any sort except that which is denominated the Purple Cape Brocoli. If the seed is sown too early the plants arrive at maturity before the heat of summer is over; and not often do well; for in August they cannot flower much, and by having to remain in a stationary state after arriving at maturity, when the proper season arrives, their having to remain sometimes dormant seems to destroy their vigor, and their produce of flowers, if any at all, are very inferior. And if it is sown too late, the cold attacks them before they attain that strength and firmness which it is necessary for them to possess, sometime before the beginning of frosty nights.

The last of August, then, is the proper time for the plants to arrive at maturity; and for this purpose the seed should be sown on any bed or border of common garden soil, on the 15th of May. This, and most other seeds sown at this season should be trod in with the feet, and the bed smoothed lightly over with a rake. By the beginning of July the plants will be in fine order for setting out. It would be advisable to set them out before July, for they do best when the plants are strong and of good size. So in the first week of July, prepare your ground for the plants. I have raised good crops of them, both on light and heavy soils; but it is of no use to plant them on any soil, unless it be in good order and well manured, and in this case they will do on any ordinary garden ground, either old or new, although this last is their favorite. Let the ground, at all events, be well manured and well dug: set the plants out in two rows, two feet distant in the rows. It is seldom the black grub meddles much with plants set out so late in the season as this; but they must be carefully examined every morning, and wherever any are seen cut off, the grub must be hunted and killed, and the vacancy filled up from the seed bed, in which a few plants should always be left for reserve.

The ground must be kept constantly loose and clear by frequent hoeings, and towards the end of August, some of them will likely begin to flower. In the beginning of September, more will begin to show, and from the middle of the month until the middle of November, they produce one continual succession of flowers. The degree of frost they withstand, without sustaining the least injury, when they are in the highest state of flowering, is astonishing. The most singular characteristic of this plant is, the great length of time which is contained between their first beginning to flower, and their final termination, and that too from the same seed, sown at the same time, and the plants all treated precisely in the same manner. Whatever plants may remain at the setting in of a settled frost, should be taken up and laid in a garden frame, as directed for fall cauliflowers; and I do not think that one in a thousand would miss flowering in the course of the winter. I have frequently flowered the remainder of my whole crop in this way, and since the seventh day of September last, I have never been one day without some plants in a flowering state; and at present, (Feb. 1828,) there is no appearance of the stragglers I laid in a frame in December, stopping their blooming career.

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* Except when the female is engaged in her operations.

I have had the last plants in my flower crop in April, and all things considered, I am convinced that this is one of the most valuable garden productions (the ruta baga not excepted,) of any we are yet acquainted with. The mode of managing it, in order to obtain good seed here, appears to be a little more precarious, nor does it appear certain, whether we shall ever be able to raise enough to prevent us from having to apply, as at present, to England for it. Although we are progressing bravely in our horticultural improvements, yet much remains to be achieved by future exertions.

The advantage of sowing Peas in circles instead of straight rows.

It is a great error in those persons who sow the rows of tall growing peas close together. It is much better in all those sorts which grow six or eight feet high, to have only one row and then leave a bed ten or twelve feet wide for onions, carrots or any crops which do not grow tall.

The advantages which will be derived are that the peas will not be drawn up so much; be stronger; will flower much nearer the ground, and in wet weather can be more easily gathered without wetting you.

But instead of sowing peas in straight rows, if you will form the ground into circles of three feet diameter, with a space of two feet between each circle; in a row thirty feet long, you will have six circles of peas, each nine feet; in all fifty-four feet of peas, instead of thirty on the same extent of ground.

If you want more than one row of circles leave a bed ten or twelve feet before you begin another.

For the very tall sorts four feet circles will afford more room for the roots to grow in, and care must be taken, by applying some slender twigs or strings to prevent the circles from joining each other,

[*Repertory of Arts.*

RURAL ECONOMY.

(From the American Turf Register and Sporting Magazine.)

STRANGLES IN HORSES

Is a disease incident to all young horses, very few escaping the disorder. It has some analogy to the small-pox in the human subject, that disease being more incident to children than to grown persons. The strangles chiefly affect colts and young horses, from the age of two and a half to five or six years old; although we have examples of horses having taken the strangles when they were eight or nine years old, particularly if a horse of this age be exposed in the same stable with young horses labouring under the disorder. The strangles resemble the small pox in this, that it never seizes horses oftener than once; whereas many other disorders, proceeding from common causes and accident, will return as often as there is a cause to produce them. The strangles begin with a swelling under the jaw-bone, attended with great heat, pain, and inflammation. Sometimes the horse is scarcely able to swallow, and in danger of suffocation, until the tumor suppurates; the disorder is always attended with a symptomatic fever and a painful cough. The swelling is not always confined under the jaw, but the animal frequently breaks out in several places of the body, and at different times, before it sinks, which renders the case more tedious and troublesome; and is still more dangerous, when at the same time the horse swells under the jaw, and different parts of the body, and runs also at the nose; because these symptoms never happen without some constitutional malignity.

This disease seldom proves dangerous, unless the efforts of nature are interrupted by improper treatment, as is too often the case. We frequently see farriers giving stimulating remedies, composed of beer and aromatic spices, &c. which treatment is a real poison to the disorder. But let us proceed with a more rational system, by first considering attentively the state of the animal; let us observe if the disorder be complicated or not: if the disorder begins with great pain and inflammation, and the horse's eyes be fixed and convulsed, his neck much swollen, and his jaw stiff, with his nose turned outwards, and his nostrils open for want of breath; in this case, it is necessary to begin the cure by taking away a sufficient quantity of blood, and to foment and apply bran and boiled turnip poultices to the tumour: this must be continued till it comes to maturity, and fit to be opened or lanced. But care must be taken not to perform this operation too soon, because by so doing, you will defeat entirely the intention of nature; for there are found, in that case, callous swellings under the throat, with a gleeting ulcer, which often brings on a running at the nose; symptoms which must be avoided, if possible, as the strangles may then degenerate into the glanders. When the tumour is opened, it must be fomented and dressed twice a day with a common digestive ointment. The diet must be warm gruel for drink, and warm mashes of bran and scalded oats, equal quantities of each. If the animal be very weak and debilitated, with a fœtid discharge from the nose, accompanied with a cough and difficult respiration, the following mixture should be given every four or five hours, until an alteration takes place: take a strong gelatinous decoction of linseed, two quarts; cinnamon, two ounces; anniseed and coriander seeds, bruised, an ounce; boil the whole for five minutes; let it infuse about twenty minutes, then strain, and add of tincture of opium, two drachms; honey, two ounces, or as much as you please.

When the danger is removed, we may discontinue, and give the following balls, viz.

Flour of sulphur, six ounces; tartar emetic, three ounces; calomel, an ounce and a half; oil of anniseeds, an ounce; anisated balsam of sulphur; sufficient quantity to form the mass; divide it into twenty-four balls, give one in the morning and another at night; or perhaps one every day may be sufficient.

The horse must have gentle exercise, and good grooming; and after his strength is returned, a dose or two of mild purging physic will be of great service, in order to clear the system from any critical swellings or discharges, that might hereafter injure the constitution. This circumstance must be always kept in view, in order to render the horse infinitely more healthful and serviceable than he would be, were this to be omitted.

Sometimes the strangles will break inwardly and the matter be discharged chiefly by the mouth, as well as by the nostrils. When this happens, let the horse's mouth be washed two or three times a day, with equal quantities of vinegar and salt water, made warm, with a spoonful of honey to each pint.

To the Editor of the American Turf Register and Sporting Magazine.

Sir,—In the last number of this work is an article upon "strangles in horses," more generally known in this county as the distemper. The author is mistaken when he asserts "that it never seizes horses more than once," I have frequently known it to attack horses more than once, but always with less violence after the first attack; nor is a horse so liable to be seized with it a second time. I once knew a colt foaled with the disorder whose mother had it at the time of its birth. I have known it to attack sucking colts and aged horses, I therefore believe that they are liable to take the infection at any age, although certainly more liable when young. The disorder does not, as the author supposes, "begin with a swelling under the jaw-bone;" it invariably commences with fever, then follows the swelling under the jaw-bone and cough. The best mode of treatment is profuse bleeding, followed by cooling purgatives, and a frequent application of poultices to parts swollen, attention to diet and gentle exercise.

The author has compared the strangles to the small pox in children; it is more like the hooping cough, if indeed it can be compared to either.

I remain yours respectfully,

A Subscriber.

Hudson, N. Y. April 22, 1830.

DOMESTIC ECONOMY.

[The writer doubted, from the nature of the subject, whether the following article could properly be assigned to the department of domestic *economy*, protesting that he has no scarcity of children, and however great the blessing, he never could find out the *economy* of the matter. He thought it ought to be transferred to the *Ladies' Department*, but we told him, expressly, it was not intended to be perused by them. —*Ed. Am. Farmer.*]

The Great Desideratum.

We recommend to all young married people, whether with or without children, to furnish themselves with one of the newly invented—*horizontal* and self-moving—*Read's patent cradles;* because, if they have no children, nor prospects thereof, they still *hope* to have, nor will there be perfect peace in the house, if we may believe in Scripture, until there be—at least not until the loving couple get so old as to learn to transfer their hopes of happiness from sublunary things to "heaven that is above all."

The old fashioned cradle, as we have been well assured, has proved to be the grave of many a dear little darling, that blended in a wonderful manner, as all pretty babies, especially the first born, do, the father's fire and the mother's softness of expression. Its rotary, *churn-like* motion, say the wise sons of Galen, shakes up and puts in commotion the soft and yet unformed brain—inflammation supervenes, and the "fell destroyer" comes; or if not quite so bad, yet it *curdles the milk* on the stomach, and gives to the poor little innocent the cholic, to such a degree, that it has been known in many cases to make them *cross*-eyed. We too as well as the Editors of the Enquirer, have seen the cradle here described, and can pronounce it the "very thing"—*the great desideratum*—but the greatest virtue has been left untold. A friend of ours in the city of Knickerbockers, who had attained to a "certain age," when men begin to be yclept "old bachelors," determined to eschew that reproach and took to himself a lovely wife. The honey moon passed sweetly by as usual in such cases, but after some months he began, cruel man, to muse and mourn over the uninterrupted health of his better half. Secretly he longed to hear of certain *symptoms.* Friends began to drop their hints,—married ladies too, arch knowing ones, began to jeer and titter; in short, he saw, or fancied that he saw, a shade of anxiety on the brow of his fair lady, and was getting cursedly uneasy himself. Happily, as he related it to me, he boldly proclaimed to his friends that he was the happiest of men, that his good star was in the ascendant—he bought one of ***Read's cradles, of horizontal*** *motion*—ordered it home to "my lady's chamber," and whether it reinspired that confidence, which is half the battle in more fields than one, or possesses some intrinsic virtue in that way, so it was; it acted *like a charm;* and fears and doubts soon passed away like clouds before the sun from the hills of Morven: when I saw him last week, his countenance was "bright as the coming forth of the morning from the cloud of an early shower"—he was the proudest and the happiest man in all that great city, except—two brave spirits that I saw stirring and serving their friends from a bowl of apple toddy, as large as the bell of St. Paul's. *Mem.*—the host was an Eastern Shore Marylander!

☞ *Read's Patent Cradle.*—We copy from the New York Medical Enquirer, the following notice of this new invention. It is from the pen of a practising physician, and entitled to the serious attention of all who are, or expect to be possessed of those troublesome blessings! commonly called poppooses. We shall give an order for a half dozen of them immediately, and supply our bachelor friends gratis. Mr. Read has exhibited his model to us, and it is "just the thing."—*Ed. Con. and Enq.*

Read's patent cradle.—In our remarks in a former number, addressed to mothers and nurses, we expressed our detestation of cradles, thereby meaning our common rocking and swing cradles. We then conceived of no substitute that would be free of the objections we entertained, and we therefore considered the bed, or a standing crib, as the most proper resting place for a child. Since writing that article, we have seen a cradle, or crib, on a new construction, invented by and patented to Mr. J. M. Read, a clerk in our post office department. Every thing objectionable in the common cradles is removed by Mr. Read's plan; and whilst *motion* is desirable to contribute to rest or to health, that purpose is amply effected by the *patent cradle.*

Mr. Read has exhibited his model, or a miniature cradle, to several of our old and experienced practitioners of medicine, whose approbation was manifested by their prompt and cheerful recommendation of its superiority over every other cradle, and by some of them giving immediate orders for substituting them for those in present use, in their own families.

We shall endeavour to give an idea of the form and motion of Mr. Read's cradle. When at rest, it has the appearance of the common crib with fixed bottom, and is supported betwixt four pillars, on moveable joints. A small pedestal is attached below, on which the slightest pressure of the foot gives a *forward* and *backward* motion to the body, imitating the motion of a carriage, on nearly a horizontal line. There is also a second moving power attached, by passing a cord from the bottom over a small brass pully, to the end of which cord a plaything may be tied, and put into the child's hands. The act of handling its plaything will set the cradle in motion, and thus enable the child to rock itself. By this useful invention, Mr. Read not only deserves, what he must necessarily obtain, the public patronage for his ingenious contrivance, but also the gratitude of every parent who can appreciate the bad effects of the old *custom* of *rotary motion,* or rocking, and the benefit resulting from the more rational and healthy substitute of this new invention.

INTERNAL IMPROVEMENT.

(From the National Intelligencer.)

We lay before our readers the following interesting comparison of the relative cost of transportation on the railway and canal of the Lehigh navigation company.

The economy of transportation on the forty-six miles of canal and river navigation, but chiefly canal, is to onrselves surprising, though justly imputable to the great width and depth, or very enlarged volume of the Lehigh canal, which is sixty feet wide and five feet deep. The Chesapeake and Ohio canal has the the same width, with the greater depth of six feet.

The expense of transportation on the Mauch Chunk railway, is, moreover, without any charge of interest on the capital expended in constructing the road, &c.—The one cent per mile being, as we understand, designed to defray the expense of repairing the railway.

The cost of tolls on the Chesapeake and Ohio canal cannot exceed, for any commodity, two cents per ton per mile, and, if the transportation (as is most certain) shall cost less one cent per ton per mile, then three cents per ton per mile will be the highest expense of carriage on this canal; an expense chargeable, it is presumed, on those commodities which can best bear such cost. The cheaper products of lumber, coal, lime, &c. will of course pay less toll than merchandize of great value.

(From the Lehigh Pioneer of April 15.)

RAIL-ROADS.

We have observed with no ordinary interest, the late accounts of Rail-roads, from Liverpool, as well as other parts of this globe of ours. The facilities of communication are evidently greatly improved by Rail-roads. The complete success of the "Novelty" in her experiment for a few hours on the Liverpool Rail-road, is in evidence of a great improvement in her boilers, so as to make her a lighter engine than ever was before applied to locomotion. Her saving in fuel is also considerable, only requiring eighty-four pounds coke per hour (her power being about equal to ten horses) it would cost at twenty-five cents a bushel for bituminous coal, say but fifty cents an hour for fuel, and as the cost of food for a horse per day is thirty cents, it would pay for the keeping of twenty horses, allowing her to work twelve hours each day. But the engine goes faster than horses, and would make her fuel about equal to the food of horse power. She is therefore as cheap a power as horses, provided an increased motion did not materially increase the wear and tear of engine, wagons, and roads.

As the Mauch Chunk company have been in practical operation with their Rail-road nearly three seasons, and have had every facility attending a company's operations on a Rail-road, and also, in making and repairing wagons and road, every advantage which could be naturally expected has been possessed, there being a foundry on the ground belonging to the company, and fuel cheap, and water power in abundance for all these operations. All these facilities combined, would, we apprehend, result in prodocing the minimnm average of the cost of using said road. We have therefore sought and procured an average statement of the work done during the said three seasons. It is as follows:

On a transportation of 87,098 tons of coal.

	Cost per ton—Cents.
Wear and tear, and repairing Rail-road wagons, - - - -	8.9434
Oil for do, - - - - -	2.2908
Break ropes for do. - - -	0.1406
Total expense of wagons, - -	11.3748
Hauling up to Summit—hands and team,	7.4873
Do. down from do. do. do	17.5113
	36.3734

The distance from the mines to the Summit is three fourths of a mile, and ascent forty-six feet; distance from Summit to end of road eight and a quarter miles, and descent seven hundred and sixty seven feet—making the total distance nine miles: = 36 cents, i four cents a ton per mile. The wear and tear of the road is estimated at one cent a ton per mile—thus making the total cost of transportation on this Rail-road (exclusive of interest account) FIVE cents a ton per mile.

At this time the same company are *now* paying twenty-four dollars a trip (and find the boats) from Mauch Chunk to Easton. It is taken at present in rough arks, composed of four or five sections, carrying altogether sixty-five tons of coal, and the cost for the whole distance of forty-six miles is thirty-seven cents a ton.

The ark cost one hundred and thirty-five dollars, and being made rough, will last, say twenty trips only, is a trip 1 1-3—to which add thirty-seven, is 38 1-3=46 miles=8 mills one-third a ton per mile—being less than ONE-SIXTH the cost per ton per mile of the transportation on the Rail-road.

LADIES' DEPARTMENT.

The March number of the New Monthly London Magazine contains these beautiful lines to the

WALL FLOWER.

I love thee, lone and pensive flower,
  Because thou dost not flaunt thy bloom
In pleasure's gay and garish bower,
  Or luxury's proud banquet-room;
But on the silent mouldering wall
  Thy clinging leaves a fragrance shed,
Or give to the deserted hall
  A relic of its glories fled.

These wreaths, in vivid freshness bright,
  Methinks the flattering herd pourtray,
Who bask in fortune's golden light,
  And wanton in her joyous way;
But thou art like that gentle love,
  Which blooms when friends and fame have pass'd,
Towers the dark wreck of hope above,
  And smiles through ruin to the last. M. A.

(From the Journal of Health.)

RULES FOR A YOUNG LADY.

1. Let her go to bed at ten o'clock—nine, if she pleases. She must not grumble, or be disheartened because she may not sleep the first night or two, and thus lay ruminating on the pleasures from which she has cut herself off; but persist steadily for a few nights, when she will find that habit will produce a far moro pleasant repose than that which follows a late ball, a route, or assembly. She will, also, rise in the morning more refreshed—with better spirits, and a more blooming complexion.

2. Let her rise about six o'clock in summer, and about eight in winter—immediately wash her face and hands with pure water—cool or tepid, according to the season of the year; and if she could by any means be induced to sweep her room, or bustle about some other domestic concerns for about an hour, she would be the gainer, as well in health as in beauty, by the practice.

3. Her breakfast should be something more substantial than a cup of slops, whether denominated tea or coffee, and a thin slice of bread and butter. She should take a soft boiled egg or two, a little cold meat, a draught of milk, or a cup or two of pure chocolate.

4. She should not lounge all day by the fire, reading novels, nor indulge herself in thinking of the perfidy of false swains, or the despair of a pining damsel; but bustle about—walk or ride in the open air, rub the furniture, or make puddings—and when she feels hungry eat a custard or something equally light, in place of the fashionable morning treat of a slice of pound cake and a glass of wine or cordial.

5. Let her dine upon mutton or beef plainly cooked, and not too fat—but she need not turn away occasionally from a fowl or any thing equally good; let her only observe to partake of it in moderation, and to drink sparingly of water during the repast.

6. In place of three or four cups of strong tea for supper, she may eat a custard—a bowl of bread and milk—or similar articles, and in a few hours afterwards let her retire to bed.

7. At other periods of the day which are unoccupied by business or exercise, let her read—no sickly love tales—but good humoured and instructive works—cal-

culated, while they keep the mind unincumbered with heavy thought, to augment its store of ideas, and to guard it against the injury which will ever result from false perceptions of mankind and of the concerns of life.

MISCELLANEOUS.

(Items from late English papers.)

In a former paper we mentioned that the proportion of illegitimate children born in England had been estimated at 8 per cent. We could not then lay our hands on the paper in which this was stated; but have found it since. It is a *Report on Friendly Societies* published by a committee of parliament, not last year, but in 1827, and is numbered 558. In a communication from Francis Courbaux, Esq. on an endowment for unborn children, inserted in the appendix, page 127, the following passage occurs:—"In the new tables of the population of the United Kingdom, such as it was in 1821, it is stated that the number of baptisms recorded in the year 1820 has been 328,190, and the number of marriages 81,749 for the counties of England alone. If *eight per cent.* (*which is certainly not above the real proportion*) be abated from that number of baptisms for the *illegitimate* children there included, the remainder, or quantity of children born in wedlock will be 301,934," &c. We see, then, that this person, who is conversant with the subject, holds that about *one-twelfth* part *or more,* of all the children born in England are illegitimate! In France, it is ascertained by correct returns for a long course of years, from the whole kingdom, that it amounts to about *one-thirteenth* part. It is true, the proportion for England is merely estimated, not ascertained; but we have no doubt that Mr. Courbaux, though he cannot refer to positive returns, has good data for his computation, and the real number is as likely to exceed as to fall short of what he states. Indeed, the pamphlet of the Rev. Mr. Brereton, and various facts and circumstances, had led us to infer long ago that there was fully as much of this species of immorality in England as in France, Germany, or any country of northern Europe. Let us turn now to the criminal calendar. In France, the number of persons committed for crimes in 1826 was 19,556, from a population of 31,000,000; in England it was 16,147, from a population of 12,800,000. In France, the persons committed were *one* out of 1,600; in England *one* out of 800. In other words, *there is twice as much crime among a million of Englishmen as among a million of Frenchmen!* The above numerical statement is taken from a Parliamentary Report in 1828, the substance of which will be found in the *Companion to the Almanac* for 1829. Our object is not to depreciate John Bull, but to prevent him from crowing over the infirmities of his neighbours. When the question regards immorality and crime, let him look at his annual progeny of 30,000 bastards, and 16,000 criminals—and be silent.—*Scotsman.*

The following statement, related by A. G. Busbequius, who went into Turkey as ambassador from the Imperial Court to Solyman the Magnificent, in the year 1544, seems to surpass all the previous or subsequent cases of physical resistance to the influence of heat.—"Another Turkish pilgrim, who fell into Busbequius' company, was dressed in a long white habit, with flowing hair and a casson; he dined with the ambassador, and afterwards went down stairs, where, taking up a huge stone, he therewith struck himself several times upon the breast, in a manner sufficiently severe to have felled an ox; yet he did not appear to eel it; he also held a red-hot piece of iron in his mouth, without being the least injured. In this last, one of Busbequius' domestics pretending to emulate him, suffered severely for his folly, burning his handa in such a manner, that he was a long time under cure. Yet in this last trick there is nothing very surprising; it is practised, says our author, by many vagrants, who fortify their mouths against the effects of heat, with a certain chemical preparation; and our author had seen a juggler in Venice wash his hands, thus counter-armed, in a platter of melted lead. This same fellow told many surprising stories of the power and sanctity of a certain prior of a monastery to which he belonged; such as, that he could spread his cloak upon the surface of a lake, and row up and down as if in a boat; also, that he would suffer himself to be bound fast to the body of a sheep, newly killed, and thrown into an oven, therein to remain until the beast was sufficiently baked; yet he would come forth unhurt."

AERIAL BARRIER.

The extreme rarity of the air on high mountains must, of course, affect animals. A person breathing on the summit of Mont Blanc, although expanding his chest as much as usual, really takes in at each inspiration only half as much air as he does below, exhibiting a contrast to a man in the diving-bell, who, at thirty-four feet under water, is breathing air of double density; and sixty-eight feet, of triple, and so on. It is known that travellers, and even their practised guides, often fall down suddenly, as if struck by lightning, when approaching lofty summits, on account chiefly of the thinness of the air which they are breathing, and some minutes elapse before they recover. It appears from all this, that although our atmosphere be fifty miles high, it is so thin beyond three miles and a half, that mountain ridges of greater elevation are nearly as effectual barriers between nations of men, as are islands or rocky ridges in the sea, between the finny tribes inhabiting the opposite coasts.—*Atlas.*

The *Constitutionnel* gives another outline of the 4th volume of the statistical account of Paris, containing information of a very extensive nature. From these statements it would appear that the capital, in 1826, consumed bread to the amount of 51,000,000 of francs (or 2,000,000*l.* sterling;) animal food to the amount of 94,000,000 (or nearly 4,000,000*l.*;) of eggs, cream, and cheese, to the amount of 13,000,000 of francs; of wine and spirits 79,000,000 of francs; of beer 5,000,000 of francs; of sugar 22,000,000 of francs; of coffee 8,000,000 of francs, and of *pure water* 4,000,000 of francs. Many other details of less importance are given in these tables. From them it would appear that the average number of letters daily delivered at Paris is 36,000, that there are 25,000 horses, and 11,000 carriages.

A rather novel description of vehicle, *á la Russe,* not often witnessed in England, was driven down the Strand this morning. It was a small light four-wheeled cart, drawn by three bull-dogs in complete harness, two abreast and one in front. In the cart was a gentleman of East Grinstead, and his son. He said that the usual rate he drove at was seven miles an hour, but that he had often gone at the rate of ten miles. The general time he takes to drive from East Grinstead to Brighton is six hours, a distance of forty-eight miles, and he has very often left the Brighton coach behind. He has gone even fifty-two miles with these dogs in the course of a day. This was his second trip to the metropolis. In some instances he said he had to pay turnpike tolls, but not generally.

The following fact relative to the winter quarters of frogs may, perhaps, be acceptable. In draining a bog or springy piece of ground in the winter of 1813-14 (during the frost,) I discovered a large quantity, some hundreds I suppose, embedded about three feet below the surface, in the head or source of a more than usually strong spring. Upon being uncovered they appeared very inactive, but not torpid or motionless, and attempted to bury themselves again in the sand, which, from the flowing of the water, was so easily separated as to admit a pole of considerable length to run down it with a slight pressure. The cavity in which they were, and which apparently was formed by them, was so placed that the water of the spring flowed through it, and prevented their feeling the effects of the frost. In cleaning ditches or stagnant ponds during the winter, I have never seen any but at the bottom of ponds, in which, I am told, they are common. Are we not to infer from this that they instinctively seek springs, as the water is less liable to freeze; and, as they were in the instance mentioned capable of moving, that they do not hybernate or become torpid during the winter, but that they respire in water, or in their hiding places? I have never observed them in ditches or pools until near their spawning time, viz. after a few warm days in February or March, when their "*croaking* is considered the precursor of spring and provocative of sport" to boys; after which the embryo frogs appear as black spots in a large mass of gelatinous matter.

[*Magazine of Natural History.*

Hands of the Whale.—The breast fins of the whale, instead of being composed of straight spines like those of fishes, conceal bones and muscle formed very like those of the fore legs of land animals, but so enveloped in dense skin, that the fingers have no separate motion, though the hand, if it may be called so, is flat, very pliant, large and strong, enabling the whale to sustain the young closely compressed to its body, as was remarked by Aristotle. The gradation of the hand, as it appears in apes, &c. may be traced in the otter, seal, walrus, manati, and dugong, into the whale.

CURE OF HARE-LIP!

The Winchester Republican contains a communication from Mr. Wm. Carlyle, of Hampshire county, which states a very neat and successful operation performed by Dr. Carroll N. Magill of Gerardtown, Berkeley county, on Mr. C's two sons. One was 28 and the other 25 years of age. Several physicians had pronounced that no operation could be performed on the eldest. But on visiting Dr. M. he remarked (says Mr. C.) that "there might be a possibility of getting a lip for my son by taking it from his cheek. I agreed, and took both of them to his house, and he operated upon them—and I am happy to state, that in six days afterwards they were able to return home. It is now three weeks since the operation, and they are perfectly well; and unless you were told, you would not observe that there had been any vacancy in the lip of either. I might also add, that Landon could not be understood by those who were not accustomed to him, but his voice is so changed that strangers can now understand every word distinctly.

[*R. Compiler.*

Hope is a working-man's dream.—*Pliny.*

RECIPES.

STING OF A WASP OR BEE.

The following has been asserted to be a remedy for this painful sensation. Over the spot where the sting has entered, apply the pipe of a key, press it for a minute or two, and the pain or swelling will disappear. The tincture of opium, (laudanum,) immediately administered, is also said to be a certain cure.

COTTAGE BEER.

Take a quarter of good sweet wheat bran, and put it into ten gallons of water with three handfuls of white Mathon hops. Boil the whole together in a pot or copper, until the bran and the hops sink to the bottom. Then strain it through a hair sieve or a thin sheet, into a cooler, and when it is about lukewarm, add two quarts of molasses, or three pints of very thick treacle. As soon as the molasses or treacle is melted, pour the whole into a nine gallon cask, with two table-spoonfuls of yeast. When the fermentation has subsided, bung up the cask, and in four days it will be fit for use.

THE FARMER.

BALTIMORE, FRIDAY, APRIL 30, 1830.

☞ We have *greatly improved* the American Farmer, in the type and paper, and, at least for all the younger members of families in which it is taken, we flatter ourselves that its contents are more entertaining and instructive. Its patrons may be assured, that the exertions of the Editor will not be relaxed. The department assigned for the use and entertainment of female readers will be more carefully attended to, and ample information will continue to be given in relation to the prices of produce, at home and abroad, with an abstract of all news that may affect them.

☞ It is of all things the most unpleasant, to call the attention of our patrons to the *state of their accounts*—nor should we do it now, but, that circumstances require us to have the use of what is *fairly due*, and that as soon as it can be collected. We acknowledge with gratitude, and some pride, that generally our subscribers are as punctual as those of any other periodical; nor is this notice intended for those who *have* paid for the *last volume;* although *according to the terms*, the subscription was due, in advance for the present volume, of which seven numbers have been published. It is to those who owe for the *last* and for any previous volume, that we now appeal, not only as a matter of justice, but, we will acknowledge it as a *matter of favour*, to send us *by mail*, at our cost and risk, and without further notice, what they know to be *due;* or at least as near as they can "*make the change.*"

☞ SEA-KALE AND RHUBARB.—These delicious vegetables are scarcely known to housekeepers, and even to professed gardeners they are "rare plants;" and yet, at this season of the year, when asparagus and sprouts are the only green vegetables at command, and when we have absolutely nothing but dried fruit for the desert, sea-kale and rhubarb might be very advantageously introduced. A few days ago a friend favoured us with a mess of sea-kale, and by a lucky incident the desert was supplied with *rhubarb tarts*—a feast which we will venture to say has fallen to the lot of few this spring. The sea-kale is surpassed in richness and delicacy only by the cauliflower; but considering the season when it comes into use, it is unrivalled. It is a new dish on the table, filling a perfect vacancy, and with which no other comes in competition. Rhubarb occupies the place of the gooseberry, and for tarts is not inferior to that fruit. This also is enhanced in value by its early coming into use—in this climate it can always be had, by open-ground culture, by the 20th April. Besides these advantages, both these vegetables are of very easy culture; for, after obtaining a supply of the plants, they will continue for years to afford an abundant supply without replanting or any other trouble than seasonable dressing of the beds; and the space of ground occupied by them is very small—a dozen plants of rhubarb and fifty of sea-kale will afford sufficient for a family. Market gardeners would undoubtedly find it greatly to their interest to cultivate them, and we hope ere long to see a regular supply on their stalls.

☞ BALTIMORE MARKETS.—The prices of flour have again receded, and Howard street is selling from stores briskly at $4 75—wagon price 4 62½. Our highest quotation of white wheat must be understood as referring to the *best* quality—such as is used in making Ellicott's best family flour. There has been no beef on the hoof in market this week, and our quotation is therefore nominal.

LATEST FOREIGN NEWS.

The only foreign news received since our last is the following, which, "if true," is sufficiently important:—

Office of the Philadelphia Gazette,
April 27, 1830.—11½ A. M.

Extract of a letter to Mr. Sanderson, dated New York, April 26, 1830.

A letter was received here by the eastern mail today, from St. Andrews, N. B. stating that a vessel had arrived there from Liverpool, with London dates to the 2d inst. A letter of that date states that the negociations with our ministers relative to the West India trade had been concluded by the *refusal to accept the terms proposed by Mr. M'Lane, he not having offered any good or sufficient reasons.*

Yours truly, LANG, TURNER, & Co.

Prices Current in Boston, April 23.

Apples, best, bbl. 1.75 a 2.25. *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.25 a 9.50; cargo No. 1, 7.75 a —— No. 2, 6.75 a —— *Butter*, inspected, No. 1, new, lb. .10 a .14. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 4.75 a 5.00; Genesee, 5.00 a 5.50; Rye, best, 3.00 a 3.87. *Grain*, Corn, bu. .50 a 55; Rye, .65 a .70; Barley .62; Oats .35 a .40. *Hogs'-Lard*, 1st sort, new, lb. .7 a .8. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.50 a ——; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 9 a 10; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .45 a 60; do. do unwashed, .25 a .40; do. three-fourths, washed, .37 a .45, do. half blood, .35 a .38; do. quarter, washed, .30 a .33; Native, washed .30 a .33; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, April 24.

Bees-wax, yellow .20 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .11; Alabama, .9½ a .11½. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a 5.00 Canal 5. a 5.25; Balt. Howard st. 5.25 a ——. Richmond city mills, —— country, 5.00—Alexand'a, 4.87½ a 5.12½; Fredericksburg 4.87½ a 5.00; Petersburg, 4.87½ a 5.00; Rye Flour, —— a 3.25; Indian Meal, per bbl. 2.50 a —— per hd 12.50 a 12.75. *Grain*, Wheat, North, 1.05 a 1.09; Vir. 85 a 90; Rye, North, 62½ a 63; Corn, Yel. Nor. .48 a 50; Barley, — a — Oats, South and North, .28 a .36; Peas, white, dry, 7 bu. — Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.00 a 9.50; prime 5.50 a 6.25; cargo 4.50 a —— Butter, N. York, — a — shipping, .6 a 10; Lard, .6 a .6½; Pork, mess 12.50 a 12.75; prime 9.25 a 9.50.

Prices Current in Philadelphia, April 26.

Bees-wax, yellow .20 a .22; *Beans*, bushel $1.00 a 1.25; *Beef*, mess 10.00 a —— prime 6 a 9, cargo 7; *Butter*, No 1, 7 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11½, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .7 a .7½. *Flour*, sup. 5.00; fine, 4.62 a —— Rye 3.00 a —— Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask ——; bu. 1.28 a ——; *Grain*, Wheat 1.00 a — Rye 48 a 50, Corn l. c. white, .35 a .36, l. c. yellow, 39 a .40, u. c. round, 42 a 45; Oats .25 a .28, Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .8 a .10, Virginia .8 a .9, Western .7½ a .8; *Hemp*, 220 a 225; *Lard*, .5 a .7; *Oil*, linseed, 71 a 72; *Pork*, mess, 12.50 a ——, prime 10.50 a 11; cargo 10. *Rice*, 2 25 a 2.75; *Tobacco*, Kentucky .4 a .7, Vir. .4 a .5½. *Wool*, common washed lb. .22 a .26, half blood .26 a 30, three quarters blood .32 a .—, full blood 33 a .38; unwashed, generally 6 cents less, according to quality. &c.

ALMANAC.

1830. May.		Sun. Rises. H. M.	Sun. Sets. H. M.	Length of days. H. M.	Moon. sets. H. M.
Saturday,....	1	5 7	6 53	13 46	1 50
Sunday,......	2	5 6	6 54	13 48	2 25
Monday,.....	3	5 5	6 55	13 50	3 08
Tuesday,....	4	5 4	6 56	13 52	3 40
Wednesday,	5	5 3	6 57	13 54	4 11
Thursday,...	6	5 2	6 58	13 56	4 40
Friday,.......	7	5 1	6 59	13 58	rises.

Moon—Full Moon, 7, 6h. 44m. Even.

BALTIMORE PRICES CURRENT.

TOBACCO.—Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 3.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 429 hhds Maryland, 28 hhds Ohio, 4 hhds Ky. and 2 hhds Pa. total 463 hhds.

FLOUR—best white wheat family, $6 00 *a* 6.50—super. Howard st. 4.75 *a* —— city mills, 4.75 *a* —— Susquehanna, —— CORN MEAL, bbl. 2.25—GRAIN, best red wheat, .95 *a* .98; best white do. 1 00 *a* 1.10. ordinary to good, 80 *a* 85—CORN, white, .37½ *a* —— yellow .40 *a* ——RYE, .60 *a* ——OATS, .26 *a* .27—BEANS, .90 *a* 1.00—PEAS, .65—CLOVER SEED, 3.75 *a* 4.—TIMOTHY, 2.50—ORCHARD GRASS, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—BARLEY, — *a* ——FLAXSEED, 1.08 *a* ——COTTON, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .20 *a* 20½; in bbls. 22½ *a* ——WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—HEMP Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—FISH, Shad, Susquehanna, No. 1, bbl. 5.50; do. trimmed, 6.50—North Carolina, No. 1, — *a* 5.50—Herrings, Susquehanna No. 1, bbl. 3.75 *a* ——; Mackerel, No. 1, 6.25 *a* —— No. 2, 6.00—No. 3, 3.00 *a* 3.75—BACON, hams, Balt. cured, .9 *a* .10—Feathers, .29 *a* 30—Plaster Paris, cargo price per ton, 3.75 *a* 4.00; ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00—Prime Beef on the hoof, 4.50 *a* 5.25—Pine Wood, by the vessel load, 2.00 *a* 2.50—Oak Wood, 2.87½—Hickory, 3.75.

Provision Market, April 29.—Beef, best pieces 8 cts. ordinary .6¼; fresh pork, best cuts .6¼; mutton .5; lamb .37½ a .62½ a quarter; veal, best cuts, .8; ordinary .6¼; pigs, roasters .81¼ a 1.00; fresh shad .16 a .31¼ a pair; chickens .62½ a pair; eggs .9 a dozen; butter, favourite prints, .31¼ a .37½ per lb.; roll, fresh, .20 a .25; ordinary .12½ a 20.

Vegetable Market—Asparagus, .6¼ to .25 a bunch; apples .31¼ a .50 a peck; lettuce .2 a .3 a head; radishes .2 a .4 a bunch; onions .3 a bunch; cabbage sprouts .12½ a peck; Hanover sprouts .6¼ a peck; potatoes, Irish, .8 a .10 a peck, .25 a bushel; sweat potatoes .12½ a peck; carrots .6¼ a bunch; parsnips .12½ a peck. Dried fruit, apples .31¼ a peck, .4 a quart; peaches .12½ a quart.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY.

AGRICULTURE.

DISEASES IN GRAIN.

J. S. Skinner, Esq. *Oneida, Nov. 18, 1829.*

If you deem the following observations on the mildew of wheat of any value, you will perhaps give them a place in your valuable publication; they were elicited by the extracts on the disease of grain, from the British Farmer's Magazine, contained in the American Farmer of the 16th October, 1829.

It appears to me that the European writers do not point out distinctly the difference between the diseases to which grain are subject.

I will confine my observations at present to mildew, or rust, and smut.

Mildew attacks the stalk and leaves of the plant; the berry or grain may be much shrunk or shrivelled, but the little it contains is flour, the substance not altered; in smut the stalk or leaf is not much affected, but instead of flour the berry contains a black dust, and grains of this description are found among wheat, the general sample of which is full and plump.

Having sowed two parcels of Sicilian wheat in my garden in the autumn of 1818, I watched their progress with much solicitude, as this wheat was much superior to any I had ever seen. About the middle of July, 1819, within a fortnight of our harvest time, I had the mortification to perceive the mildew commencing on my Sicilian wheat; by the aid of a magnifying glass, I perceived blisters running longitudinally up and down the stalk; in process of time these burst, and the epidermis appeared as a white scale adhering to the side, or by one end, top or bottom, to the stalk; these blisters were confined to that part of the stalk and leaves exposed to the atmosphere and sun, while the part of stalk covered by the lower part of the leaf escaped. The denuded part seems uneven, becomes brown, then black, and at length reddish; the last, the red colour, by the aid of a glass will be discovered to be fungi springing from the stalk; by paring the stalk it will be found that the discolouration penetrates to the canal in the centre. I have examined wheat when growing in each succeeding year, and the same phenomena have appeared as in my Sicilian wheat in 1819. The conclusion has been, that the fungi or parasitical plant, (crude) is not the primary cause, but by some atmospherical effect, probably a change of temperature, the sap vessels burst, the juice exudes, by exposure to the air undergoes a chemical change, it becomes a fit soil for the seeds of the fungi, with which at that season the atmosphere is well supplied; this parasite strikes its roots into the stalk, and obstructs the juices that otherwise would perfect the grain.

That it may be caused by a change in temperature I suspect, from what has destroyed numbers of my fruit trees, when towards the last of March, the thermometer will ascend to 82 in the shade, and 120 in the sun, about 3 P. M., and by day-break the morning following, be at 0, the south west side of the tree becomes heated, the sap started, but the night air chills it again, the bark separates and cracks, the alburnum dies, and mushrooms spring up from the rotten wood.

In the years 1816 and 1817, our summers were temperate and cool, indeed so cool that the maize did not ripen, but the wheat escaped the mildew, a thing that seldom happens in this district, our crops being almost every season more or less injured by this disease.

I cannot believe that intestinal plants have any thing to do with mildew, nor that it can be prevented by any steep; the earliest kind of wheat, early sowing, manuring with salt or lime, which seem to hasten the ripening of the grain, are the best preventives.

Smut is a disease confined to the grain or berry, where instead of flour a black dust is found; this disease may be said to be contagious, but the most ample experience has proved that it may in 99 cases out of 100 be prevented. I ate black bread, and from 1000 bushels wheat had not one but was merchantable, for ten years after I settled in the valley of the Mohawk: for the last twenty years my loaf has been as white as it was during my residence in the Genesee country. The method followed is perhaps as simple as any recommended for preparing seed wheat.

I would premise by advising the farmers to select a field, or part of one, while the grain is growing, have that portion wed from cockle, chess or rye, when the seed is threshed give it one or two runs extra in the winnowing machine, fill a tub 2-3 full of a saturated solution of common salt; beef, pork, or fish brine will do; let his seed wheat run slowly into this, skim off what swims, when the brine is about three inches deep, take out the grain, let it drain a few minutes in a basket, then mix it with quick lime, till each berry is coated; the seed may remain 12 hours in the lime, although I have had it sown immediately on mixing, and with similar effect; a quarter more seed is requisite when limed, as the caustic material will destroy the vegetable life in some of the weaker grains.

The blight or albigo is different from the mildew, it seems an abortion, the head does not bend like the full ear, and on examination no grain is found. The carbon is that black appearance where the head seems covered with soot, it is much more frequent in the highly manured land in Europe than with us, the flail and fanning mill drives it off.

Should you consider the above as worthy an insertion in the American Farmer, I may trouble you with some more notions, the result of nearly fifty years experience, during which period I have been more attached to agriculture than was profitable to me.

With esteem and respect,
Agricola.

WASHING SHEEP.

Brook Hall, Washington Co. Va. April 24th, 1830.

J. S. Skinner, Esq.

Dear Sir,—I have noticed in the American Farmer, No. 9, vol. 10, dated May 1st, 1828, a description of the method of washing wool on the sheep's back, signed W. R. Dickinson. I approve of his description given as to the necessary preparation for washing—he speaks of a dry day being the most suitable time; in this particular I must disagree with him. I have been in the habit of washing my wool on the sheep's back for 20 years, and when I first commenced I selected a dry day, and I soon found that I was injuring my sheep; by having them in a pen and crowded together, it made the animal too warm to plunge them into the water, they of course must be brought to a perspiration, and it produced a cold, which my sheep was much injured by. Being pleased with the plan of washing the wool, I began to inquire of myself, how to remedy the difficulty. I determined I would make another experiment on a rainy day, or the next morning after a rain—and after making the experiment, I found it produced no injury to my flock, and it adds much to the progress of washing. I have this day had my sheep washed, and stood by with my watch, and I find if the wool is wet by rain it softens the dirt and cake, so that two men taking hold of a sheep, and having it in a brisk running stream a sufficient depth to cover the animal, that they can wash a sheep in one minute; I find that water about knee deep is sufficient, and when there is sand or mud in the bottom, I would recommend a platform of plank, placed in the bottom of the stream, so as to keep the sand or mud from getting in the wool. I have my pen immediately at the water, and a gap so that the hands that are engaged washing the sheep are to remain in the water, and one hand inside of the pen to hand the sheep out to the washers, and by making that arrangement, I find, that the business can be dispatched with great convenience. I have no doubt that those who may make the experiment, will find it interesting. If you think my remarks useful, you can give them room in your paper. Wm. Byars.

[Without waiting to read the following, our confidence in the talent and judgment of the writer is such, and the subject itself one of so much importance, as connected with the public interest and morals, that we at once consign it to the printer, and commend it to the attention of our readers.]

(From the New England Farmer.)

SUPPRESSION OF INTEMPERANCE.

An Essay on the means necessary to accomplish a total abolition of the practice of drinking Ardent Spirits.

BY SAMUEL WYLLYS POMEROY.

It has been said that whoever plants a single oak, confers a favor on generations not then in existence; but how much more exalted a benefactor is he who shall bestow lasting obligations on the present as well as future generations. And such are those who exert their best faculties to promote the total abolition of the use of ardent spirits. We cannot imagine an earthly paradise in which the human heart can so rationally luxuriate. And where is the individual who feels "a divinity stir within him that points to an hereafter," and hence a desire to alleviate the miseries, and augment the comforts of his fellow beings, that does not exult, when he reflects upon the powerful *moral* force now abroad, and in active operation for the suppression of intemperance? We here propose to excite attention to *physical* efforts; as from the apparent neglect of them, we are led to believe, that the community are not sufficiently aware of their importance. Pious exhortations, eloquent argumentative harangues and the praiseworthy exertions of the medical faculty have been productive of results highly auspicious, and that have exceeded the expectations of many of the most sanguine. They have *Scotched* the serpent, but will they *crush* him—is there no danger that he may "return to wallow in the mire"—will they have that *abiding* effect as when united with efficient *practical* measures? It is believed not;—a vigorous combination seems indispensable, to accomplish the Herculean labor. In the present state of the world, how far can we, in general, rely on the convictions of men's understandings?

> "They know the right, and they approve it too,
> Condemn the wrong, and yet the wrong pursue."

Ought not the senses, the taste, the palate to be propitiated?—then there is a *habit,* a potent antagonist—second only to time, for its weapons are always close at hand; as it must be admitted that the ease of access and facility of administering a stimulant or beverage from the various preparations of alcohol were in a great measure instrumental to its introduction, and have had a powerful influence in promoting the vast and appalling increase of consumption.

Is it not a cardinal point to change this habit in the *natural way!* Far be it from me to arrest the progress of exertions in the pulpit—the diffusion of moral precepts, or to discourage the extension of societies for suppressing intemperance and conventions to abstain from ardent spirits. Our object is to urge these associations, and the community, especially the fairer and most estimable portion, whose influence and *handy works* will have commanding force, to exert all their physical energies for the diffusion of pleasant, mild and innocent stimulants to suit the condition, taste and circumstances of all ranks and classes, throughout our whole country, and place these substitutes within their reach in the most alluring forms.

The substitutes we shall notice are the fermented liquors, such as wine, perry, cider, beer—and the milder stimulants and restoratives of tea, coffee, cocoa, chocolate, &c.

Wine.—It is well known that in all countries where wine is produced in any abundance, the people are temperate, and consume little or no ardent spirit. Indeed it is said to be nauseous to a great portion of the population of wine countries. Mr. *Jefferson,* in a letter to *M. de Neuville,* lately published, says, "I rejoice, as a moralist, at the prospect of a reduction of the duties on wine, by our national legislature. It is an error to view a tax on that liquor as merely a tax on the rich. It is a prohibition of its use to the middling class of our citizens, and a condemnation of them to the poison of whiskey, which is desolating their houses. No nation is drunken where wine is cheap; and none sober, where the dearness of wine substitutes ardent spirits as the common beverage. It is, in truth, the only antidote to the bane of whiskey. Fix but the duty at the rate of other merchandize, and we can drink wine here as cheap as we do grog; and who will not prefer it? Its extended use will carry health and comfort to a much enlarged circle. Every one in easy circumstances (as the bulk of our citizens are) will prefer it to the poison to which they are now driven by their government." To confirm the position of the philosophic sage, we are enabled to adduce facts of recent occurrence.

In the "Banner of the Constitution," a semi-weekly paper published at the City of Washington, and most ably edited by a gentleman distinguished for talents and superior commercial information. it is stated in an article which appeared the 3d of February last, that by the Act of 1791, the duty on London particular, was 56 cents, and upon other Madeira wine, 40 cents per gallon. By the act of 1816, the duty, which had been doubled by the war act, was fixed at one dollar per gallon on all kinds of Madeira; but has been reduced to 50 cents, and took effect January 1, 1829. The same article states "we understand that in Philadelphia there is not now a gallon of Madeira wine drank, where formerly there was a demijohn, (5 gallons,)—and we have the authority of an extensive dealer in wine for asserting, that many who were liberal consumers of wine, are now *drinkers of brandy!* That we should import more wine from Madeira, than we pay for with our exports which is the case at present, is one of the consequences of our own acts. Madeira at one time took from us forty thousand barrels of flour per annum, besides a large quantity of corn. She paid us in wine of which we took at that time from her about 5000 pipes. We then resolved by increasing the duty on wine, to diminish the extent of our trade, and we now import only 2500 pipes for a population nearly double. This step drove Madeira to find out another market for bread. She found it in Sardinia; from which country she now derives the supply which she formerly drew from the United States. How soon our reduction of duties will bring back trade into its old channels, time will determine. *The taste and fashion of wine will gradually return with its cheapness.* The nation, however, has lost by its folly, millions which can never be regained, and has driven thousands from the consumption of a wholesome and innocent liquor to inebriating substitutes." This statement elicited a letter to the editor which appeared in a subsequent paper, from an eminent dealer in Lancaster, Penn., bearing date 9th Feb. 1830—from which the following is extracted. "The statement of the trade of the Island of Madeira, in the Banner of the Constitution, must convince the most incredulous. It is really astonishing that the operation of high duties, and the consequences are so little understood. It is perfectly within my recollection, when not one pipe of French brandy was consumed within our county, within a year—and when grog drinking was not known. What a change!—and I attribute this unfortunate change, to high duties on wine. I will state one fact that is worth knowing. The house of ——, of Philadelphia imported upwards of one thousand pipes of wine a year; but for a number of years, under high duties, the house, which is yet in existence, and of whom I bought some wine a few weeks ago, although it had wine constantly on hand, has not sold one thousand gallons (10 pipes,) in a year—*all this wine was paid for in produce.* Our worthy Germans would hail the time when they could get a gill of good Lisbon or Teneriffe wine for 6¼ cents, or Madeira at 12½ cents which were the former prices."

It appears by a report of the finance committee of the British Parliament, in 1828, that the reduction of the duties on wine and coffee which took place but a very few years before, had increased the consumption of wine fifty per cent., and doubled that of coffee!—though they are still enormously high compared with ours. Ever since William the Third introduced from the marshes of Holland that fatal *malaria* called *Hollands* or *Gin,* the consumption of ardent spirits in Great Britain has continued to increase, and nearly in the ratio as the taxes on wine and beer have been augmented. Late accounts state that the duties on beer have been or are about to be abolished to the amount of *three millions sterling!* What a *compound* relief will this measure afford to the distressed population of that country.

We state one more fact only to show to what extent an advance in price lessens, and a reduction increases the consumption of an innocent luxury.

A few years since when coffee was retailing in Boston for 20 to 25 cents a pound, *imitation* coffee, prepared from rye was introduced, and large quantities consumed; for sometime scarcely a coaster arrived from Philadelphia, which seems to have been the great mart for the articles, but had part of a cargo of *rye coffee,* which was sold at about 6 cents. Real coffee is now retailing at 14 or 15 cents a pound; little or no *rye* coffee is imported, and the grocers say it is seldom inquired for: yet it is believed there is as serious a call for *strict* economy, as at any period since the establishment of the Federal Government.

Tea—has been a steady, and by no means feeble opponent to ardent spirits; and it rests with our national rulers to render it much more powerful.

Coffee, I consider one of the most effective weapons for the warfare we are waging, provided due attention is paid to its preparation. One of the most prominent complaints of foreigners who honor us with their visits, is the imperfect preparation of the coffee they meet with, and we believe, that among all their *fault findings,* this item is the least imaginary. They say that we "deluge our stomacks with a weak and muddy decoction of half roasted, and half charred coffee beans!—and how far, with few exceptions, are they from the truth? The preparation of coffee in the *French* method, renders the decoction so superior to that generally to be obtained in our country, that it is difficult to recognise that they are the production of the same berry; yet I can assert from the experience of fifteen or twenty years, in my own family, that it is attended with less trouble and inconvenience, and withal, full as economical. A bill has been reported to Congress, by the finance committee of the senate, providing for the abolition of the duties on wine, tea and coffee, after June, 1831. The tariff on these articles have never been viewed in any degree connected with that of 1828, which now agitates the nation,—indeed at the very session when that was fixed, the act passed reducing the duty on wine to take effect in January, 1829. But unfortunately, the bill above referred to, embraces provisions for the reduction of duties on other articles, in which the question of the *protecting system* is deeply involved; and from present appearance it is feared will not be acted upon the present session or perhaps the next. Were a bill introduced separately to abolish, or very much reduce the duties on wine, tea and coffee, there are well founded hopes that the object would be effected. It should be borne in mind, however, that justice demands the abolition of duties to be gradual or have a prospective operation, to the end that the holders of stocks of the articles may be secured from loss.

Does it not behoove the people to instruct their servants to effect a measure so important to their welfare,—should not the tables of the presiding officers of both houses of Congress be covered with memorials directed to this object?

As coffee has been before alluded to, we shall amplify our remarks upon this item, viewing it as one of the most attractive substitutes, not merely as a diluent to morning and evening meals, to which its use in our country is at present generally confined, but to be ready in all seasons, and at all hours, as a salubrious and refreshing stimulant to the professional, studious and other sedentary classes—to the weary traveller—the hard working mechanic, and laborer, and to him that works still harder to *kill time;* who, if he seek a diluent with his cigar, and is governed by *precedents,* may rest assured that it is the universal beverage of a greater number of *smokers,* than can be found in this country, or perhaps in christian Europe beside.

Should the duty on coffee, which is five cents, be abolished, the average cost to the consumer will not probably exceed ten cents a pound, when a bowl of it, including sugar and cream, may be afforded as cheap as a tumbler of hot *whiskey punch* or *sling,* or a mug of *flip,* and may be exhibited with equal facility, and as little trouble. For this purpose a *coffee roaster,* now so common, that a description is unnecessary, should be provided, with which the berries are uniformly roasted, and the volatile oil or *aroma* that adds much to its perfection, preserved; a great portion of which escapes when burnt, as it is termed, in open vessels. The next and indispensable requisite, is called by the French a *Grcque;* and which now come from England, invoiced *"Patent Coffee Machines."* They are manufactured in this country, and may be had of the tin workers at from 50 cents to a dollar and a half, according to size, including a coffee pot. With this apparatus, no longer time is required to make coffee than to put the material, which should be ground fine, into the *tube,* pressing it down carefully, with the *stamper* upon the fine strainer at the bottom, and turning boiling water on to the coarse strainer at the top; when the liquid will come out perfectly clear and limpid, and the grains so completely *leached,* as barely to discolor water when boiled in it. Some nice palates have discovered that coffee has a *raw* taste when prepared by this method, but which is completely removed by boiling the clear liquid a few seconds. A stopper should be applied to the nose of the pot, and the cover made to fit tight, to prevent the escape of the volatile parts, when it may be kept in a state sufficiently hot for drinking, a day or more without any very perceptible difference.

As the following items have an important bearing on *rural economy,* it may be proper in this place to repeat the answer to the question frequently propounded. "Is there or is there not a necessity for using ardent spirit in any of the labors of husbandry?" To which I reply, that from the experience of 30 years, and the employment of eight months of labor, on an average each year, in the operations of agriculture, horticulture, and improvements on my estate at Brighton, some of them *heavy jobs,* such as ditching *bogs* and *marshes,* and reclaiming large tracts of *wet meadow,* I do not hesitate to declare my most solemn conviction, that this stimulant, in any form, is by no means necessary!—that every farmer, and I may venture to include all classes of laborers, can command substitutes as *cheap,* and that will enable them to perform every description of labor, with as much energy and infinitely less detriment to their constitutions! It was my determination at first not to furnish spirit; but owing to the prevalent custom in the neighborhood, and the ungovernable state of labor, during the period of the long war in Europe, I was obliged to conform, and allow large quantities; and I say it with regret, almost bordering on self reproach. Had I have known the value of substitutes, since discovered, I think I should have remained firm to my first purpose; and thereby considerably increased the amount on the credit side of my bank account; and *possibly* the more important *future* account of some of the recipients.

Beer is unquestionably the prominent and most extensive substitute for spirits, especially with the laboring classes, and public breweries cannot be too much encouraged; for we find that in every town or village wherever established, or within their range, effects highly beneficial. But it should be taken into view that the brewing of *malt* liquors, to have them in any degree of perfection, is an *art* which few private families possess; requiring somewhat expensive utensils, and vaults of a temperature much more equal than is generally to be found in the *shallow cellars* in our country. Now it is well known that the sacharine substance extracted from malt, the all important constituent of beer, is precisely the same as that from the sugar cane. The other extractive matter is principally a *mucilage* in which resides a great portion of the *leaven*, or fermenting principle, and which renders malt beer so flatulent, and prone to acidity in the stomach, especially if *small;* and heating, and what is termed *heady* to most of those who do not labor or use severe exerercise, if *strong*. From many experiments conducted with great care, in brewing with molasses and hops alone, I am decidedly of opinion, that it is no object for families to brew with malt, provided good molasses or sugar can be obtained. We believe that the reputation of molasses and hop beer has suffered materially from inattention and *parsimony*. The best hops have not in general been selected, nor has there been molasses used in sufficient quantity to give the necessary body to the liquor.

Every family should brew two sorts of beer, viz: No. 1, to represent mild ale or porter when bottled; and when drawn from the cask, *strong beer*—to serve those engaged in severe labors, either in field or workshops. Not less than *three gallons* of good heavy *molasses*, and *one pound and a quarter* of *first sort* inspected hops, should be used to brew thirty gallons of such beer. No. 2, to contain two gallons of molasses, and one pound of hops of the same quality, and for a similar quantity of beer, this is to serve as a general beverage, and never should be made weaker. No. 1, having so great a body, it is sometimes difficult to get on a proper fermentation without a little *top yeast*, and leaving the bung out, a few days; but as soon as the fermentation has got so far as to work out of the bung a day or two, it should be driven in, and no air given except by a small vent to be opened only when the cask is in danger of bursting. No. 2, should have the bung driven in as soon as it is filled up, leaving two gallons, or about a pailful short, for a cask of 32 gallons, which will be plenty of room for it to work in; and if brewed in March will get perfectly fine in May, and keep sound through the season. If the beer is found too strong, water is always at hand to reduce it, and render the beverage much more pleasant than if put in at first.

A most delicious *ale* may be brewed with sugar in the same manner; but having mislaid my memoranda, I do not recollect the proportion it bears to *molasses*. I think *distillers* allow six or seven pounds of good brown sugar to produce as much spirit by distillation, as one gallon of molasses.

Cider.—There is perhaps no department of rural economy so obnoxious to censure for inattention and even palpable neglect, as in the management of this item. During a period of 19 years that I had the honor to serve as trustee and vice president of the Massachusetts Society for promoting agriculture, the making of cider was a subject of discussion at almost every monthly meeting of the board. To excite the attention of the *farming interest*, was a prominent object, and a large share of its publications, which were distributed to every town in the state for many years, semi-annually through the members of the Legislature, was devoted to communicate the most approved method for the preparation of this valuable liquor, and liberal premiums have been bestowed at every annual exhibition; yet it seems that the result of these efforts has fallen vastly short of what might reasonably have been expected. A gentleman who acted as one of the commissioners to explore the route for a canal from Boston to the Hudson, informed me that while traversing a distance of 400 miles of country, they could find but in a single instance a mug of cider that could be called even *tolerable;* though anxiously sought for, as it was a beverage that they were particularly attached to. Are our countrymen aware that cider may be made equal to, and become a substitute for *German* and *French white wines* that are held in considerable estimation? They may rest assured of the fact, which it is in my power to prove by the testimony of many living witnesses, and prepared, too, without the addition of *distilled spirits,* or any other *foreign* substance.

Perry, by attention to select the proper fruit, and care in the preparation, is equal if not superior to a great portion of what is called *Champaigne wine,* that is quaffed at the fashionable circles in our cities and their vicinage. It is an unquestionable fact that large quantities of *Perry,* made in England from the *squash pear,* have been exported to France by contract with the French *vintners,* and never leave their vaults under any other name than Champaign wine. We have tasted perry made in the vicinity of Portsmouth, N. H. that we feel confident would pay a handsome freight if shipped, by a winter passage to France; and probably would be returned as Champaign of *approved brands,* and sold at a dollar a bottle.

Chocolate is said to be a most valuable restorative in cases of extreme exhaustion by labor and exposure to sudden changes from heat to cold and wet. It has been found by the experience of perhaps a century in Boston, to be the most salutary restorative and invigorating stimulant that has been discovered, for those who use violent exertions in extinguishing fires. We should like to have the experiment fairly tried by administering *chocolate* as an auxiliary to strong beer, to *firemen* of steam engines and others whose vocations expose them to intense heat, and of course excessive perspiration.

But we are inclined to believe that the simple potation, called by our ancestors *porridge,* and by us *Indian gruel,* which sustained them through all their severe labors and perils, (for it was their "first at morn, and last at eve,") may be made a cheap and valuable substitute for chocolate. During a rapid and very fatiguing journey over the Alleghanies, in dog days, I experimented with *gruel* on myself; and found it a more stimulating and durable restorative than any substance I had ever before tried. My companions who were veteran travellers, though not intemperate men, had recourse to the usual stimulants, *juleps* and *sling*. When arrived on the Ohio, it was confessed by them that the *pilgrim* potation triumphed over the production of the still, by the appearance of much more animal strength and spirits in a habit considerably less robust. If a laborer when he turns out at 4 o'clock in a hot morning to mow his half acre of grass before breakfast, will on starting, drink a pint of warm gruel, which should be made ready the night before, and take another pint into the field, he will not require a *dram* or *mint sling* to relieve faintness or restore appetite. And it will be found not less beneficial when mowing, reaping and other severe labor occupies the middle of the day, to *alternate* with beer, nor does it provoke thirst if prepared in a proper manner—which is to have the meal sifted very fine, mixed with a great deal of water and boiled down till it will be of the thickness of good *cream* when *blood warm,* or just *potable*. It should be seasoned with salt to suit the taste of the consumers—a little sweetening may render it more grateful to some, and to have it in the greatest perfection it should be prepared fresh once a day at least, in an utensil *always clean*.

In closing the list of the most important substitutes, we ask attention to *pure soft water,* as a *preventive* of intemperance not less impurtant;—how many thousands have been imperceptibly led to this habit, by beginning with a spoonful of spirit to correct or qualify a tumbler of *bad water?*

A measure has been proposed as one of the means of suppressing intemperance, by several whose opinions are entitled to respect, which we sincerely hope will not be resorted to. It is that the municipal authorities interpose to restrain the granting of licenses for selling ardent spirits. We apprehend that the age of sumptuary laws has, in our country at least, gone by; and fear the attempt would have the same tendency to *demoralize* that excessive duties have—*smuggling* inevitably follows—besides producing an effect not dissimilar to the high impost on *foreign spirits,* for every gallon of which it has kept back, three gallons of *home* product have been consumed! If we may be allowed a *simile,* Congress has said, "we have enhanced the price of *arsenic,* by taxing it enormously, but you may quaff our native *hellebore,* which is equally virulent, to your heart's content for a *song,* and *encourage domestic industry*.

Would not the good effects be commensurate to any expense and time that might be required, if temperance societies and other associations should appoint committees or agents, who, having made themselves acquainted with the best mode of management of the several substitutes enumerated, were to distribute samples of suitable apparatus, impart instruction personally, and encourage a spirited emulation throughout our country!

We have exhibited the principal means, which, if they are prosecuted with vigor, in conjunction with the *moral* exertions now in progress, and that we trust in God, will continue with increased ardor, afford the animating prospect that the object in view may be accomplished before the expiration of the present half century; but we should perhaps lead the reader to the *verge of credulity* to utter such a prediction. Yet there is rational ground for believing that these united efforts will elicit, as auxiliary, an *engine* that "gives motion to the springs and direction to the wheels of power,"—that engine is *opinion*—a *lever* against which, in the present instance, no earthly force can prevail; for its *fulcrum* will rest upon a foundation laid by him who "spake as never man spake." And to him "ought gratitude to flow from the swelling heart of every member of the human family, in a stream, as rich, as generous, as delicious, as the wine that flowed at the marriage of Canæ."

Boston, Mass. April, 1830.

CULTURE OF FLAX.

Pennsylvania, Feb. 16th, 1830.

Sir,—The efforts which are making throughout the United States to produce hemp of a quality equal to that of other countries, have induced the manufacturers of flax to lay before you a few prominent facts in relation to this article, with the view of enlisting your favor and influence towards increasing its production, and improving its quality; more particularly as the duty imposed by the law of 1828, will, in a year or two, amount to a prohibition of the foreign article.

The first and most natural inquiry of the Farmer is, where he can find a market for his produce, after it is grown, and it is unquestionably of the first importance to him to have this question satisfactorily answered.

In our country, differing from most others, the government have provided no means by which we can ascertain precisely the consumption or production of an article; we can only state, therefore, what comes within our own knowledge. There are flax manufactories in Massachusetts, Connecticut, N. York, N. Jersey, and Pennsylvania: The extent of the machinery we are not aware of; one of them, however, imported in the year 1829, to the extent of 400 tons of flax, and although the others may not be so extensive, it has been supposed that not less than 1600 tons of flax is annually spun up by machinery actually in operation, and at least twice that quantity is consumed in the various kinds of twine and household goods, continually to be met with in every principal town in the United States. Of that applied to machinery at least one half has been imported; but as the law of 1828, provides for an annual increase of duty, in the year 1831 it will be indispensably necessary to have the raw material produced at home or the works must be stopped.

It appears then there is now a demand for nearly 5,000 tons of flax annually. We all know that the consumption will increase with the facility of procuring the article. Were our farmers then to undertake the supply of the present demand, we venture to predict that in 1835, the quantity required would be nearly doubled. It will be said, however, that there is this quantity of flax now produced in the country. This will be admitted; and yet no one will pretend to doubt the continual importations, because the returns from our customs show that the country yearly derives revenue from this source. But if the produce equals the consumption, why should the importation of foreign flax continue? The answer is obvious to all. The native article cannot be consumed by the manufacturer on account of its quality. It is the universal practice of our farmers to let their crops go to seed, and after pulling it, to dew rot; by this means the quality of the flax is deteriorated—the loss in quantity is considerable, and we will go on to show that the whole process is directly at war with their immediate interests.

We have been informed by farmers of great respectability that an average crop is about 300 pounds to the acre, pursuing the method they ordinarily do in our country. The value of this flax is not over 8 cents; for at that price it can be purchased from the retailer, although he may allow more, payment being made in merchandize; 300 pounds then, at 8 cents, is $24; the 6 bushels of seed are sold at $1 per bushel—making together $30 per acre. Every pound of foreign flax costs the manufacturer, at his works, not less than 11½ cents per pound. There can be no doubt but that *water rotted* American flax, pulled early, would command the same price, which would make the 300 pounds yield $34 50, leaving a balance in favour of this process of $4 50; but it is indisputable that the same crop, if pulled when the bloom falls and the bolls are forming, would yield nearly 50 per cent. more of flax. In order, however, to restrict our inquiry without the bounds of doubt or conjecture, we will suppose that the crop would not be increased in weight over 33 1-3 per cent. which added to $34, would be equal to $45, the produce of each and every acre employed in the cultivation of flax then so prepared.

To substantiate this statement we beg leave to submit the following estimate, on high authority, the report of the Board of Agriculture in England, where flax is grown, notwithstanding the duty on foreign flax is only 4d. sterling the cwt. or $1 60 per ton.

Working the land,	*l*0	16*s*.	0*d*.
Seed and sowing,	1	2	0
Cleaning and weeding,	0	5	0
Pulling,	0	10	0
Loading and watering,	0	10	0
Taking and grassing,	0	12	0
Turning and taking up,	0	5	0
Rent of land,	5	5	0
Dressing 50 stones of flax, at 1s. 6d. per stone,	3	15	0
	£13	00	0
Fifty stone of flax, from one acre, sold at 8s. per stone, is	20	00	0
Leaves profit,	£7	00	0

It will, therefore, be seen, that, notwithstanding the heavy expense of £5 5s. or $25 per acre annual rent for land, there is in England a profit of £7, or $35 per acre, the flax selling at about 11½ cents per pound.

The duty on the introduction of foreign flax will amount to a prohibition in twelve months, and the law of 1828 having increased the protection to the manufacturer, the consumption has been and is gradually increasing in our country. In a few years we might be able to compete with foreigners in almost every article made from this material now imported. The quantity of flax then required would make its culture as important to the farmer as that of almost any other article manufactured into cloths; for the value of linen manufactures imported annually into the United States, amounts to $6,983,613, which is within $900,000 of the amount of woollens imported, and within $4,000,000 of that of cotton. This then is the hour of advancement, and if delayed the farmer will not soon again have another such opportunity. There is no want of enterprise in the manufacturers; but the absolute want of the raw material will prevent the exercise of his talents or industry, or the employment of his capital. It is, therefore, hoped, that our desires now expressed, may reach the grower, with whom, out of the nature of things, we are immediately allied, notwithstanding the attempts of political economists to divide and separate this connexion. Nature has so ordained it, and the stripling law-maker of modern days, who aims at a distinction of interests, will lose his time when addressing himself to those who *feel* the tie that binds them together; for by fostering the consumer, the interest of the producer is advanced, and in separating them, both become the sacrifice.

We beg to recommend the subject to your attention; and if by any law you can encourage the growth of flax, or induce the farmer to alter the mode of pulling and curing, so as to render it useful to the manufacturer, you will have rendered an important service, not only to an industrious community, but to your country generally.

We have the honour to be,
Sir, your obedient servants,
The Flax Manufacturers of the United States.

(From the Southern Agriculturist.)

ON THE CULTURE OF RED CLOVER.

Pendleton, July 14, 1829.

Dear Sir,—Observing in the last number of your work, that you have re-published a fact, as to the resuscitation of a crop of red clover, which I had incidentally stated to the Editor of the American Farmer. I beg leave to state it more particularly; believing that an inference may be drawn which may prove useful, at least to the upper part of our state.

The cultivation of red clover, as an improver of our soil, and as a substitute for that continual draft on our corn cribs, has been long a desideratum in our system of husbandry; but heretofore neglected, from an impression that the heat of our suns was too intense, and our soil too arid for its product. But the result of my little experience has, I think, clearly proved that it will not only flourish well, but that it is very difficult, if not impossible to eradicate it.

I think on reflection, that it was in February, 1816, that I sowed two acres in clover and timothy, with a little oats, intended as a shield against the heat of the sun. The latter took the lead, matured and was cut, leaving the former thinly scattered over the surface. It was suffered to remain that season, and go to seed on the ground. The spring following, being very wet, the whole surface was completely covered with the most luxuriant growth of clover and timothy that I ever saw. At the proper time it was mowed, and all who saw it were astonished at its product. The next year proved dry, and it did not succeed so well.

The high price of cotton, the cultivation of which, at that time seemed to absorb every other pursuit, induced me to abandon the idea of grazing which I contemplated at the commencement of my experiment; and the clover patch was ploughed up very deep, with a two horse barshare for potatoes, preparatory to a crop of cotton which followed and was continued three or four years successively, yielding not less than one thousand pounds of green seed per acre.

It was manured, and planted in corn, five feet by eight inches in the drill, to contend for a premium offered by our agricultural society. The product was fifty-nine bushels and three pecks per acre, notwithstanding it suffered severely from drought; otherwise, all who saw it growing believed that it would have made from seventy to eighty bushels per acre. The year following it was sowed in rye, yielding a fine crop; then rested one year; and finally, sowed in oats last February, and to my astonishment, as well as all who have seen it, a fine growth of clover has sprung up, where there had not been the least vestige for ten years.

It is scattered over about two acres; but an acre, or a little less, has turned off very nearly four large wagon loads of hay, as much piled on as four large mules could draw. He must be sceptical indeed, who does not believe that red clover* can be successfully cultivated, at least in our upper districts, after the result which I have stated.

Hoping that its cultivation may become general, and believing that it is of the utmost importance, not only in renovating our exhausted fields, but as furnishing the means of rearing our own stock, which all must admit to be necessary in these *tarific* times. I beg leave to subscribe myself very respectfully, yours, &c. John E. Calhoun.

HORTICULTURE.

On the Origin of and Partiality for Tulips.

Most countries have a predilection for some particular plants, while all the rest are disregarded. In Turkey, for instance, the flowers which, after the rose, are principally esteemed, are the ranunculus and the tulip, the latter of which grows wild in the Levant; but, through accident, weakness, or disease, few plants acquire so many tints, variegations, and figures, as the tulip. This gaudy flower was first cultivated in Italy, about the middle of the sixteenth century, under the name of tulipa, obviously derived from Tuliband, which, in the Turkish language, signifies a turban.

It is well known that in Holland the tulip became, about the middle of the seventeeth century, the object of a trade unparalleled in the history of commercial speculation. From 1634 to 1637, inclusive, all classes in all the great cities of Holland became infected with the tulipomania. A single root of a particular species, called the Viceroy, was exchanged, in the true Dutch taste, for the following articles—2 lasts of wheat, 4 of rye, 4 fat oxen, 3 fat swine, 12 fat sheep, 2 hogsheads of wine, 4 tons of beer, 2 tons of butter, 1000 pounds of cheese, a complete bed, a suit of clothes, and a silver beaker—value of the whole 2500 florins.

These tulips afterwards were sold according to the weight of the roots. Four hundred perits, something less than a grain of Admiral Leifken, cost 4400 florins; 446 ditto of Admiral Vonder Eyk, 1620 florins; 106 perits Schilder cost 1615 florins; 200 ditto Semper Augustus, 5500 florins; 410 ditto Viceroy, 3000 florins, &c. The species Semper Augustus has been often sold for 2000 florins; and it once happened that there were only two roots of it to be had, the one at Amsterdam, and the other at Haarlem. For a root of this species one agreed to give 4600 florins, together with a new carriage, two grey horses, and a complete harness. Another agreed to give for a root twelve acres of land; for those, who had not ready money, promised their moveable and immoveable goods, houses and lands, cattle and clothes. The trade was followed not only by mercantile people, but also by the first noblemen, citizens of every description, mechanics, seamen, farmers, turfdiggers, chimney sweeps, footmen, maid servants, old clothes women, &c. At first every one won, and no one lost. Some of the poorest people gained, in a few months, houses, coaches and horses, and figured away like the first characters in the land. In every town some tavern was selected which served as a change, where high and low traded in flowers, and confirmed their bargains with the most sumptuous entertainments. They formed laws for themselves, and had their notaries and clerks.

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* The white clover grows spontaneously with us, and is very common.

These dealers in flowers were by no means desirous to get possession of them; no one thought of sending, much less of going himself to Constantinople to procure scarce roots, as many Europeans travel to Golconda and Visipour to obtain rare and precious stones. It was in fact a complete stockjobbing transaction. Tulips of all prices were in the market, and their roots were divided into small portions, known by the name of perits, in order that the poor as well as the rich might be admitted into the speculation: the tulip root itself was at length put out of the question—it was a nonentity; but it furnished, like our funds, the subject of a bargain for time.

During the time of the tulipomania, a speculator often offered and paid large sums for a root which he never received, and never wished to receive. Another sold roots which he never possessed or delivered. Often did a nobleman purchase of a chimney sweep tulips to the amount of 2000 florins, and sell them at the same time to a farmer, and neither the nobleman, chimney sweep, nor farmer, had roots in their possession, or wished to possess them. Before the tulip season was over, more roots were sold and purchased, bespoke, and promised to be delivered, than in all probability were to be found in the gardens of Holland; and when Semper Augustus was not to be had, which happened twice, no species perhaps was oftener purchased and sold. In the space of three years, as Munting tells us, more than ten millions were expended in this trade, in only one town of Holland.

The evil rose to such a pitch, that the states of Holland were under the necessity of interfering; the buyers took the alarm, the bubble, like the South sea scheme, suddenly burst; and as, in the outset, all were winners, in the winding up, very few escaped without loss.

Some persons are so fond of odoriferous plants and flowers, as to have them in their bedchamber. This, however, is a dangerous practice, many of them being so powerful as to overcome the senses entirely. Even plants that are not in flower, and have no smell, yet injure the air during the night, and in the absence of the sun, by impregnating it with nitrogen and carbonic acid gas; although in the daylight they rather improve the atmosphere, by yielding oxygen gas.

A melancholy proof of this, recorded by Dr. Curry, occurred in October, 1814, at Leighton Buzzard, in Bedfordshire:—"Mr. Sherbrook having frequently had his pinery robbed, the gardener determined to sit up and watch. He accordingly posted himself with a loaded fowling piece in the greenhouse, where it is supposed he fell asleep, and in the morning was found dead upon the ground, with all the appearance of suffocation, evidently occasioned by the discharge of mephitic gas from the plants during the night.

GARDEN WALKS.

The following cheap improvement is recommended in the construction of walks in gardens, lawns, &c. uniting the advantages of great hardness, durability, and freedom from worms and insects:—When a new walk is made, or an old one reformed, take the necessary quantity of road scraping, previously dried in the air, and reduced as fine as possible; mix with the heap enough of coal-tar from a gas work, so that the whole shall be sufficiently saturated, and then add a quantity of gravel; with this lay rather a thick stratum as a foundation, and then cover it with a thin coating of gravel. In a short time the walk will be as hard as a rock, not affected by wet, or disfigured by worms.—*County Chronicle.*

We saw yesterday, with much pleasure, some fine specimens of the unrivalled collection of *Hyacinths* which the Messrs Landreths display at their rich nurseries. The superiority of some of the varieties, in the size of the bells and the lustre of the colors, over the flowers commonly sold, is striking to every eye. Among the many beautiful plants now worthy of inspection at the nurseries, are numerous varieties of the *Camellia Japonica,* several species of the *Chinese Magnolia,* and the surpassing *Rhododendron Arborea* from India.—*Philad. Nat. Gazette.*

RURAL ECONOMY.

(From the American Turf Register and Sporting Magazine.)

BIG HEAD IN HORSES.

A correspondent writes us for information respecting any remedy for what is called the *Big-head* in horses. This is a disease incident to horses, which makes its appearance by a swelling on each side of the face between the eyes and nostrils, and almost always proves fatal. We regret that it is not in our power to say any thing very satisfactory, with regard either to the nature or the treatment of this disease. It appears to be peculiar to our country; as, by reference to the English and French Farriery books we find nothing stated in them analogous to it. Our inquiries from several professional veterinary surgeons in our city have been equally unsatisfied. In one case only, we learn, from Dr. Haslam, that by checking it in its very incipient stage, or rather when it was suspected to be coming on, the animal has been cured by administering the *stramonium,* Jamestown weed, in doses of one drachm mixed with his feed for several days, and then turning him out for two or three months. A careful anatomical inspection, after death, would no doubt throw some useful light upon the subject, which is important; since we are told, that the disease is very common in the western portions of our country.

Remarks on the Big-head in Horses.

I have been a breeder of horses for forty years, I never observed this disease until two months ago, then in a fine colt about ten months old, a large swelling appeared in a direct line between his nostrils and eyes, and was very hard; I was alarmed, and supposed it to be something of glanders, or colt's distemper, but it continuing without much change, and no other part of the head affected, I confess, I knew not what the disease was, until I saw in your last number, the disease called big-head in horses;—the description given corresponds perfectly. The colt run in a fine wheat and rye field all the winter, was fed well with grain, had a shelter to go under, and straw to lie on, nothing was done for him, the swelling is lessening, and I flatter myself he will get over it in a short time, and yet make a capital horse. The use of a hard brush frequently applied can do no injury, and may be of great use not only to the part affected, but to the whole body. If the above is worth a place in your pleasing Register, you may insert it. I never see a horse with a remarkably ugly head, that it does not remind me of the famous English Eclipse. The above disease will destroy the best shaped head for the time.

Very respectfully,

THOMAS PETERS.

Georgetown, April 22, 1830.

(From the American Turf Register and Sporting Magazine.)

CURE FOR THE MANGE, OR ITCH, IN DOGS

Fresh butter, *free from salt,* quarter of a pound.
Red precipitate, one ounce.
Venice turpentine, one ounce.

Mix the whole well together, and put it into a pot for use, rub it on the parts affected morning and evening, keep your dog tied up, and keep him warm and dry for some days.

N. B.—The above application is both cheap and simple, and is one amongst the most valuable prescriptions I know of; it will cure the most inveterate ring-worm, or tetter, the tenia capitis, and any other eruption on the skin of a human being.

THE DISTEMPER IN DOGS.

Take one part aloes.
Two parts salt petre.
Four parts sulphur.

Incorporate the whole together, and take as much as will lie on the point of a dinner knife, either put it into warm milk, and drench the dog, or give it him in slices of meat. Tie up your dog for twenty-four hours after, and repeat the same in a day or two after, should the dog not be relieved.

N. B.—I have used the above remedy for twenty-five years, or more, and have relieved more than sixty dogs, and in no instance have I ever seen it fail.

AN OLD SPORTSMAN.

LADIES' DEPARTMENT.

TO YOUNG LADIES.

When, and whom is it safe to marry?

They ought not to marry a young man who, when he comes to address them, can stay a week or two—such a one will be likely to love the fire and the house too well—will not go to the barn—and the new ground, and the cornfield, &c. often enough.

Never marry a young man without some occupation by which he could support a family. He will be apt to need the proceeds of such occupation, when the trade must be learned. Say, if you marry him he must be a doctor, not a quack—a lawyer, not a pettifogger—a merchant on his own capital, not a borrowed one—a shoemaker, not a cobbler; have the thing itself—a farmer, or a mechanic of some order, if he be a basket maker; have the profitable occupation in the bargain; don't marry without it.

A young lady will be very unsafe in marrying a young man who uses ardent spirits either temperately or intemperately—because more women have been rendered wretched on account of drunken husbands than any one thing else. Don't marry a reformed drunkard, as a man hardly ever gets clear of this awful disease.—If you want to be miserable—if you want wounds without cause—a husband with red eyes, &c. marry a man who drinks, who takes a little, and you are more likely to have the above enjoyments than in marrying any other character. If a man can't give up his dram, he can sacrifice the happiness or property of any woman by "taking a little." But methinks I hear some one say by this time—"Where are young ladies to get husbands? You lop so close you leave us none?"—O yes—look for them in the honest, virtuous walks of life. Don't marry a profane swearer—a gambler—an infidel—one who takes a little—a debauchee—a man without an occupation—you had better die an old maid than marry either. Young ladies, remember your soul's salvation is involved in your marriage—then look to God for direction. [*Richmond Tel.*

Almost all our desires are apt to wander into an improper course; but care will render us safe and happy through life.

MISCELLANEOUS.

RENSSELAER SCHOOL FLOTILLA.

We presume all our readers are familiar with the name of the Rensselaer School at Troy, supported at no small expense, by the benevolent and public spirited individual whose name it bears, and superintended by Professor Eaton, who has cultivated the natural sciences with so much reputation and success. By a new arrangement, a summer term of travelling instruction is to take place each year. That for the present year is to commence on Wednesday, the 23d of next June. The students will be taken on board of steam-boats at 10 o'clock in the morning of that day, from the wharf at the lower end of Courtlandt-street, and conveyed to Albany. From that city they will proceed in a Flotilla of towed canal boats to Lake Erie, and be returned in the same manner, at the end of the term, which will continue ten weeks. In their progress the Professors and assistants will give daily lectures in the forenoon, and hold daily examinations in a room occupying one of the largest boats, furnished with scientific apparatus and instruments, and cabinets of natural history. In the afternoon each student will be employed in collecting geological specimens, a complete set of which he is expected to preserve, as also of the minerals and plants to be obtained in the places visited. He will also practise land surveying and engineering, as circumstances may permit. A reading room with a scientific library will make part of the arrangements. The students will be taken to the Palisadoes, Sing Sing, West Point, Catskill Mountains, Cohoes Falls, Trenton Falls, "Lake Sodom in its white, green and black bowl," the Salt Springs and Salt Works at Salma, the Falls at Niagara, and twenty other interesting localities mentioned in the prospectus of the institution. Here the students will inspect rocks and minerals *in place*, plants and minute animals in their native localities, the works of the engineer in actual operation, the labours of the agriculturist carried on in earnest and on a large scale, and the principles of mechanical philosophy applied to engines and hydraulic works as at Rochester, Lockport, &c.

The Flotilla will move slowly, allowing sufficient time for collecting specimens and making examinations, except when passing through the Cayuga marshes and other swampy grounds, when its course will be rapid.—Arrangements will be made for such persons as may wish to accompany the expedition with their families; and the prospectus drawn up by Professor Eaton suggests that a part of the great expenditure of money and time annually bestowed upon fashionable tours, "might in this way be applied to the double purpose of seeing the world and cultivating the understanding."

The Rensselaer School was instituted as an experiment in the cause of instruction, without expecting or desiring pecuniary remuneration. "About twenty thousand dolls.," says Professor Eaton, "have already been expended in trials by the Patron, which being attended with flattering success, another is now to be made," although at some risk of loss. Of the advantages to be derived to the students of the institution from a plan furnishing so much to stimulate curiosity, to gratify the passion for novelty, and to make and leave a strong impression of the lessons of science, while it mingles a healthful degree of bodily activity with the pursuit of study, there can be, we think, no doubt. The following extracts from the prospectus give some particulars of the plan not mentioned in our article.

Every student will be furnished with passages, board and instruction in the branches mentioned in their prospectus, for the sum of eighty dollars, (but furnish his own provisions while travelling by steam boats) one half to be paid at entering and the remainder at the end of four weeks. Those who have been students at the school nine weeks in either of the experimental terms, will pay a sum equal to the charges of a term of fifteen weeks—to wit: fifty-four dollars.

"As one lodging boat must be procured for about every twenty students, in addition to the dining, lecturing and cooking boats, the number of students must be known by the first day of June. Written applications for births may be made to Daniel Cady Eaton, No 90 Pearl street, New York: Dr. S. G. Morton, Philadelphia; Mr. F. Algin, Boston; Webster and Skinner's bookstore, Albany; Professor Fav Edgarton, Utica; or sent to the Senior Professor at Renssalaer School, Troy. Either of these gentlemen will exhibit the printed prospectus and explain the plan when called on.

THE DRUNKARD'S TREE.

The
Sin of
DRUNKENNESS,
Expels Reason, drowns
Memory, distempers the Body,
Defaces Beauty, diminishes Strength,
Corrupts the Blood, inflames the Liver,
Weakens the Brain, turns Men into walking
Hospitals, causes internal, external and incurable
Wounds; is a Witch to the Senses, a Devil
To the Soul, a Thief to the Purse, the
Beggar's companion, a Wife's Wo,
And Children's sorrow; makes
Man become a Beast and
A self-murderer, who
Drinks to others'
Good health and
robs himself of
his own! Nor
is this all;
It Exposes to the
Divine
DISPLEASURE HERE!
and hereafter to
ETERNAL DAMNATION!
Such are
Some of
The evils
Springing
From the
ROOT OF
DRUNKENNESS.

Preservation of Small Birds.—Remove the viscera, brain, eyes, and tongue with a hooked wire, fill all the cavities with antiseptic paste, or cotton saturated with it; bind the bill and wings with thread; hang it up by the legs, pour from one to two ounces of ardent spirits into the vent, and leave it to dry in an airy place. The paste is made with eight parts of white arsenic, four parts of Spanish, and one part of soft soap, and three parts of camphor, with a few drops of alcohol.—*Magazine of Natural History*.

The largest condenser for distilling gin ever manufactured has been made for Mr. Hodges, by Mr. Joseph Hulls, of copper, and weighs upwards of five tons. Its height is fourteen feet six inches, its dimensions eight feet. It is to make ten gallons per minute, or 6000 per day. [*London pa.*

Reprove thy friend privately, commend him publicly.—*Solon.*

GOVERNORS OF MARYLAND.

1637. Leonard Calvert.
1647. Thomas Greene.
1649. William Stone.
1658. Josias Fendall.
1659. Philip Calvert.
1662. Charles Calvert.
1676. His Lordship in person.
1678. Thomas Notley.
1681. His Lordship in person.
1692. Lyonel Copley.
1694 Francis Nicholson.
1699. Nathaniel Blakiston.
1703. Thomas Tench, *president.*
1704. John Seymour.
1709. Edward Lloyd, *president.*
1713. John Hart.
1720. Charles Calvert.
1727. Benedict Leonard Calvert.
1732. Samuel Ogle.
1742. Thomas Bladen.
1747. Samuel Ogle.
1752. Benjamin Tasker, *president.*
1753. Horatio Sharpe.
1769. Robert Eden.
1776. Revolution.

(Items from late English papers.)

The following are the principal results of the returns made to the French government on the population of Paris and the departments, and upon the consumption of the capital, as stated in the *Annuaire*:—There were born in Paris during 1828, in marriage and in private houses, 9,509 boys, 9,094 girls;—out of marriage, 2,608 boys, and 2,555 girls. In the lying-in hospitals for married women, 262 boys, and 261 girls; in the lying-in hospitals for unmarried women, 2,738 boys, and 2,574 girls. Total births, 22,601; of which 15,117 were boys, and 14,484 girls. This number comprises 2,291 acknowledged, and 8,184 abandoned natural children. There have been in the same year 5,970 marriages between bachelors and spinsters; 353 between bachelors and widows; 749 between widowers and spinsters; 210 between widowers and widows. Total 7,282. Deaths in private houses, 6,930 men, 8,037 women; in the civil hospitals, 4,093 men, 4,492 women; in the military hospitals, 597 men, 1 woman; in the prisons, 29 men, 45 women. There have been deposited in the Morgue, during the year, 279 male, and 54 female corpses. Total number of deaths, 24,557.—During 1828, the small-pox destroyed 176 persons, of all ages, and of both sexes.—During the same year, there were consumed at Paris 960,117 hectolitres of wine; 30,920 of brandy, 6,352 of cider; 117,131 of beer. In edibles, 71,382 cattle; 13,895 heifers; 63,667 calves; 366,229 sheep; 83,125 hogs; 8,283,727 kilogrammes of viande a la main; 1,298,523 kilogrammes of dry cheeses. There has been sold at Paris 4,283,632 francs-worth of sea fish, 970,393 francs-worth of oysters, 611,569 francs-worth of fresh-water fish, 8,542,721 francs-worth of fowls and poultry, 9,063,519 francs-wroth of butter, and 4,510,169 francs-worth of eggs. There have entered Paris, 9,480,714 bottles of hay, 14,073,187 bottles of straw, and 1,137,182 hectolitres of oats. In the year 1827, there were born in the whole of France, 469,209 legitimate boys, and 440,219 legitimate girls. The number of natural male children was as high as 36,098, and that of the natural female children as 34,670, which gives the total number of births at 980,196. There were 255,738 marriages, and 791,125 deaths, male and female. The population has therefore sustained an increase of 189,071 individuals. The result of the observations made on the number of births of both sexes, from 1817 to 1827, is that the births of boys have exceeded those of girls by a fifteenth. To learn whether climate had any influence in that respect, 30 departments were considered separately. The same result was found all over France, which proves that the excess of the number of male over that of the female births does not depend in any sensible degree upon climate. With regard to natural children, the number of girls approaches more closely that of boys.

The number of hands through which a common table knife passes in its formation is worthy of being known to all who use them. The bar steel is heated in the forge by *the maker*, and he and *the striker* reduce it in a few minutes into the shape of a knife. He then heats a bar of iron and welds it to the steel so as to form the tang of the blade which goes into the handle. All this is done with the simplest tools and contrivances. A few strokes of the hammer, in connection with some trifling moulds and measures, attached to the anvil, perfect in two or three minutes the blade and its tang or shank. Two men, the maker and striker, produce about 9 blades in an hour, or 7½ dozen per day. The rough blade thus produced then passes through the hands of *the filer*, who files the blade into form by means of a pattern, in hard steel. It then goes to the hafters to be hafted in ivory, horn, &c. as may be required; it next proceeds to the finisher, and is then packed for sale or exportation. In this progression every table-knife, pocket-knife, or pen-knife, passes step by step through no less than sixteen hands, involving at least 144 separate stages of workmanship in the production of a single pen-knife. The prices vary from 2s. 6d. per dozen knives and forks, to 10*l*. In the manufacture of a razor, it proceeds through a dozen hands; but it is afterwards submitted to a process of grinding, by which the concavity is perfected, and the fine edge produced. They are made from 1s. per dozen to 20s. per razor, in which last the handle is valued at 16s. 6d. Scissors, in like manner, are made by hand, and every pair passes through sixteen or seventeen hands, including fifty or sixty operations, before they are ready for sale. Common scissors are cast, and when rivetted, are sold as low as 4s. 6d. per gross! Small pocket knives, too, are cast, both in blades and handles, and sold at 6s. per gross, or a half penny each! These low articles are exported in vast quantities in casks to all parts of the world. Snuffers and trays are also articles of extensive production, and the latter are ornamented with landscapes, etched by a Sheffield artist, on a resinous varnish, and finished by being dipped in diluted nitric acid for a few seconds or minutes.—*Account of Sheffield.*

A most extraordinary case of sleep-walking occurred in the Castle Hill (Edinburgh) on Sunday morning. A tenant in the attic of one of the old houses there, which is five stories high, was alarmed by a snoring on the roof, and on the arrival of the watch, a man was discovered lying fast asleep on the house top, within a few feet of the edge of the slates. The question was now how to get him relieved from his dangerous situation. M'Donald, the captain of the red engine, was had recourse to, who immediately brought from head quarters the proper tackle for lowering persons from such situations in cases of fire, as practised in the late exercises of the fire establishment. The belt was put round the waist of the sleeper, and he was lowered in the most approved manner, and in the greatest safety, to the street. On his being awakened he proved to be a smith, named Joseph Brooks, who resided in the tenement adjoining, and who could only account for the situation in which he was found by a habit of sleep-walking, to which he is addicted. He had been drinking the night before, and supposes that, on his way home, he had mistaken the house top for his own bed. He states that on one occasion, about four years ago, he arose from his bed in Stirling, walked to the Forth, and swam across, and only awoke on reaching the opposite bank. On another occasion, also, he arose in his sleep, kindled his mother's fire, and after making porridge for the whole family, lay down again in bed, quite unconscious of the transaction.

[*Caledonian Mercury.*

When it was known that a young American had come to study Raphael and Michael Angelo, some curiosity was excited among the Roman virtuosi. They wished to try what effect the Appollo, the Venus, and the works of Raphael, would have upon him, and "thirty of the most magnificent equipages in the capital of Christendom, and filled with some of the most erudite characters in Europe," says Galt, "conducted the young Quaker to view the master-pieces of art. It was agreed that the Apollo should be first submitted to his view; the statue was enclosed in a case, and when the keeper threw open the doors, West unconsciously exclaimed, 'My God—a young Mohawk warrior!' The Italians were surprised and mortified with the comparison of their noblest statue to a wild savage; and West, perceiving the unfavourable impression, proceeded to remove it. He described the Mohawks—the natural elegance and admirable symmetry of their persons—the elasticity of their limbs, and their motions free and unconstrained. "I have seen them often," he continued, "standing in the very attitude of this Apollo, and pursuing with an intense eye the arrow which they had just discharged from the bow." The Italians cleared their moody brows, and allowed that a better criticism had rarely been pronounced. West was no longer a barbarian.

A steam fire engine, has been brought into successful use by Mr. Braithwaite of London—it is worked on the same principle as the "Novelty," and was manufactured by the same engineer. At the burning of the Argyle rooms, it was incessantly worked for nearly five hours; discharging from thirty to forty tons of water per hour. It threw water over a pole ninety feet high, erected for the purpose of experiment. The expenditure of fuel was only about three bushels of coal during five hours; and the help of *two* men sufficed to keep the steam up, and superintend the working of the engine. The total weight, with its complement of fuel and water is incredibly small, not more than forty-five hundred weight. The Mechanic's Magazine for February, contains an accurate drawing and description of this machine.

In latter times we have known how to profit by Papin's excellent discovery of extracting from *bones* a good and salutary nutriment, which in his days were disregarded. Papin had shewn to Charles II. of England that it was possible to extract a jelly from bones, and had engaged to prepare, within four-and-twenty hours, with 11 lbs. of charcoal, 150 lbs. of jelly, which he recommended to be used in work-houses and hospitals. The king was ready to give this project the attention it deserved, when, as he was one day going to dinner, he found petitions fastened to the necks of his dogs, the import of which was, that he should not deprive them of a food which they had long considered as their property. The jest was smiled at, and Papin's discovery was lost to the age.

There is at present living in Holland, a female who is said to have existed for nine years without taking nourishment of any kind whatever, either solid or liquid. She has not eaten any thing for eleven years; and two years after she ceased to be able to eat, she ceased to drink also. The truth of the facts connected with this extraordinary phenomenon has been testified by a medical commission of the district, which was appointed for the purpose of inquiring into the case. The female in question is 42 years of age, and resides in the village of Pynacker, near Delft. It is thought that she cannot survive many weeks longer.

It is often observed on those clear sunny mornings which occur rarely in summer and autumn, that it is very likely, if not certain, to rain before evening. And there is frequently much truth in the remark. We recollect that the shepherds of the Kyle division of Ayrshire draw an indication of a change of weather, founded on the same principle.—The two high mountains in the isle of Jura, called from their form the Paps of Jura are distant sixty or eighty miles, and of course are seldom seen from the uplands of Kyle; but when they do appear on the far horizon, like twin cones formed by an azure cloud, the shepherds always predict approaching rain, and are seldom wrong. The reason is, that when moisture accumulates in the air, before it begins to be precipitated, it imparts to it a higher refractive power, and it becomes, in consequence, more bright and transparent.

[*Companion to the Almanac.*

M. Kupfer having succeeded in reaching the summit of the Causasus, at an elevation of 1000 feet above that of Mont Blanc, observes that the magnetic intensity of the globe diminishes as we ascend, in the same proportion as was stated by M. Gay Lussac, after an aerostatic ascent of 20,000 feet.

DISBROW'S APPARATUS TO BORE THE EARTH FOR WATER.

The Mechanics' Magazine for March, published in Boston, contains a drawing which gives a view of the machinery and apparatus used for this purpose, and an interesting account of this invention, from which we extract the following:—

"A method of obtaining good water, has, within four months, been introduced into this city, under the sanction of previous success in many different parts of the United States, almost without exception. We refer to the invention of Mr. Levi Disbrow, now under the superintendence, in this city, of Mr. J. West.

"On the new land, (formerly called the Mill Pond,) this machine was tested by a place which had baffled all former attempts, and resulted, after sinking cast iron tubes to the depth of fifty-two feet, in obtaining fifteen gallons of good water, per minute, within twenty feet of the surface.

"Another experiment took place in Merrimack street, for Mr. Ezra Trull, on land of the same nature; and the tubes sunk forty feet, and yielded ten gallons of the best water, per minute, and within ten feet of the surface.

"Another in Sea street, upon salt water flats, covered with earth, the tubes were sunk one hundred and five feet, yielded pure soft water, within fifteen feet of the surface, and in quantity, at least thirty gallons per minute. The water will rise, in the latter, to within four feet of the surface. This well is situated near the end of the free bridge, and cost about five hundred dollars.

"Another instance, in this city, of the entire success of this invention, is upon land of Cyrus Alger, Esq. at South Boston, where the water rises plentifully, and of excellent quality, to the surface. The land, in this case, was also artificial."

"Two more tubes are now sinking on the Mill Pond land, which promise equal success.

"But the performances in other parts of our country, are much more surprising, and unquestionable criterions of the efficacy of this invention, than the familiar ones which we have enumerated. The earth has been bored, by Mr. Disbrow, to the depth of four hundred and fifty feet; and rock, to the depth of six hundred seventeen feet, and with comparatively light expense. In New York, after boring fifty feet through sand, and four hundred through rock, pure soft water was obtained, in quantity, thirty gallons per minute. And in Watertown, New York, a well has been bored, by this machinery, one hundred and seventy feet deep, which yields thirty gallons of water per minute, fifteen feet above the surface of the earth."

RECIPES.

DYSPEPSIA.

The New Haven City Gazette states that the secret cure for the dyspepsia, discovered by a gentleman of this city, (concerning the efficacy of which we made some remarks a short time ago,) has leaked out, and consists in simply kneading the stomach with the hands, thereby restoring the peristaltic motion in cases where the digestive organs have become diseased and torpid. Whether this is the secret remedy or not, there can be no doubt that it would be attended with very excellent effects in cases of indigestion; and instances are within our positive knowledge of persons who, by resorting to this mode of renewing the peristaltic action of the intestines, have derived very important assistance. We know of one individual, in particular, who was thus, in the space of less than three weeks, restored to comparative health, after having languished in a most miserable condition for many months in consequence of dyspepsia.

WASHING THE HEAD.

Daily washing of the head with cold water is an excellent remedy against periodical head-aches. In coryzas, or defluxions of the humours from the head, and in weak eyes, the shaving of the head often affords immediate relief, while, at the same time, it opens the pores, and promotes perspiration. It is altogether a mistaken idea, that there is a danger of catching cold from the practice of washing the head, or leaving it exposed to the free air after having been washed. The more frequently the surface is cleansed of scorbutic and scaly impurities, the more easy and comfortable we feel.

CURE FOR STINGS OF WASPS, &c.

The following antidote for the sting of wasps and other noxious insects, may be worthy the attention of our readers:—Take a leaf or two of the broad-leaved plantain (plantago major) and bruise it, by rubbing it on the part stung, and in ten minutes rubbing, or less, all the pain and inflammation will cease.

THE FARMER.

Baltimore, Friday, May 7, 1830.

Great Sale of Improved Short Horn Cattle. The public will have an opportunity, such as was never before presented in America, of procuring Improved Short Horn Cattle of the highest blood, and the most perfect form.

From the care taken by Col. Powel, without regard to trouble or expense, to get stock of the purest blood, and from established strains of good milkers; we feel confident that there is not in England, a herd of cattle superior to those at Powelton. All have been kept pure;--though judiciously crossed between different families of the same blood. All may be clearly traced to the most distinguished of their respective families in the English Stud Book. The demand for these cattle has steadily increased for a series of years, and the sales of male calves at Powelton for some years has equalled from three to four thousand dollars per annum. Col. Powel has, in most cases, refused to sell the females.

The precise date of the sale having been omitted in the advertisement, it will be supplied in our next.

☞ **The Season.**—The prospects of a plentiful fruit season were never more flattering than at present; the same remark may be made in relation to grain crops. We cannot indulge the hope of another season for potatoes equal to the last, and those who then raised them for sale will never wish to see another such; for they are so abundant even now, that they cannot be sold, except in very small parcels, for twenty-five cents a bushel; at which price, and even less, they are daily offered, after having been brought from the state of Maine.

☞ **Baltimore Markets.**—There is little or no variation in prices. Howard street flour is getting very heavy at our quotation—wagon price $4 62½. A small decline in wheat and corn will be noticed. There is no beef in market; but it is not expected that more than our highest rate could be obtained, even for the best.

☞ There has been no arrivals from Europe since our last publication.

Contents of the 9th, or May number of the Sporting Magazine.

Engraving of the "United Bowmen" *of Philadelphia*—Origin of the Club—Old Medley, brief memoir of him, with some account of his half brother, Clockfast--Pedestrian feat--Racing Memoranda from 1821 to 1825—Old Horses get large colts—Lord Mansfield and Copper Bottom--Sales of bred horses--Cold in Horses, symptoms and treatment—Shooting exploits extraordinary—Good Shot at Ducks—Law case, shooting sporting dogs—Sporting dogs, sale of, in England---Deer hunting, Black Island against Dogue Neck—Fox hunt in North Carolina--Ditto—Still-hunting deer, method of, described—Red fox eaten by hounds—Steeple chase--Badger, American, Natural History of—Economy, extraordinary instance of, in a sportsman—Fishing—the Gudgeon—Song, in praise of fishing—Angling, healthiness of—Captain Barclay, account of his performances--Hints, Corrections, &c.—The Old Cub Mare, and account of Highflyer's having been beaten, and paid forfeit—Stallions for 1830.—Sporting Intelligence.—A Fox Chase in Virginia—Answers to Inquiry in last number respecting a Game at Whist--Recollections of Marius—The Reguluses, Races at Annapolis in 1770, 1772, and 1773—Length of the Broadrock and Norfolk courses--Broadrock races—Races to be run, at New Market; Trotting Matches at L. I.; Union Course, L. I.; Norfolk; Nashville; Camp Field—Great Trotting against time on the Canton Course—Sir Solomons—Extract to the Editor—Dog Register—Turf Register, Pedigrees.

☞ *The early numbers of the Sporting Magazine have been re-printed, and are again nearly all disposed of. It is evident, that before the 12th number is published, there will not be a copy left. Those who want it will do well to make the earliest application—should it be too late for the present edition, their names will be filed for the next, which will be put to press as soon as a sufficient number of subscribers are received to render it certain that the mere expense of publication will be defrayed. In the mean time, a sufficient number of the second volume will be published to correspond with the probable demand.*

N. B. Persons having thorough bred horses for sale, may advertise them *gratis*, in the American Turf Register and Sporting Magazine, but the advertisement must only state, *briefly*, the age, blood and size of the animal, *without any reference to the Editor*—who will not have leisure for correspondence on the subject.

The next number of the Sporting Magazine will contain an elegant engraving and a memoir of the celebrated horse Sir Charles—from a painting by Fisher.

IMPROVED DURHAM SHORT HORNED CATTLE.

Mr. Powel's Stock of High Bred Short Horns, consisting of sixty males and females, either imported or bred by him, will be offered for sale at Powelton, near Philadelphia, on Wednesday, —— of June, at 10 o'clock. These animals *have never been offered for sale, nor would they be sold if the owner were not about to leave America for some time.*

WILLIAM HUGHS.

May 3, 1830.

ALMANAC.

1830. May.		Sun. Rises.		Sets.		Length of days.		Moon. rises.	
		H.	M.	H.	M.	H.	M.	H.	M.
Saturday,....	8	5	0	7	0	14	0	7	30
Sunday,......	9	4	59	7	1	14	2	8	30
Monday,.....	10	4	58	7	2	14	4	9	14
Tuesday,....	11	4	57	7	3	14	6	10	05
Wednesday,	12	4	56	7	4	14	8	11	00
Thursday,...	13	4	55	7	5	14	10	11	50
Friday,.......	14	4	54	7	6	14	12	morn.	

Moon—Last Quarter, 14th, 7h. 57m. Even.

BALTIMORE PRICES CURRENT.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 330 hhds Maryland, 17 hhds Ohio, 68 hhds Ky. 7 hhds Pa. and 6 hhds Va. total 428 hhds.

Flour—best white wheat family, $6 00 *a* 6.50—super. Howard st. 4.68¾ *a* 4.75—city mills, 4.62½ *a* 4.75; Susquehanna, —— Corn Meal, bbl. 2.25—Grain, best red wheat, .95 *a* 1.01; best white do. 1 00 *a* 1.02. ordinary to good, 80 *a* 85--Corn, white, .36 *a* —— yellow .39 *a* ——Rye, .60 *a* ———Oats, .30 *a* .33—Beans, .90 *a* 1.00—Peas, .65—Clover seed, 3.75 *a* 4.—Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ---Lucerne .37½ lb.—Barley, — *a* ——Flaxseed, 1.08 *a* ——-Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21 *a* —-; in bbls. 23 *a* 23½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.–Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140-water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 6.00; do. trimmed, 6.50—North Carolina, No. 1, — *a* 6.50—Herrings, Susquehanna No. 1, bbl. 3.87½ *a* 4.00; Mackerel, No. 1, 6.25 *a* —— No. 2, 6.00—No. 3, 3.00 *a* 3.25-—Bacon, hams, Balt. cured, .9 *a* .10—Feathers, .30 *a* 31—Plaster Paris, cargo price per ton, 3.50 *a* 3.75; ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 5.25 *a* 5.50—Pine Wood, by the vessel load, 2.00 *a* 2.50—Oak Wood, 2.87½—Hickory, 3.75.

Provision Market, April 29.—Beef, best pieces 8 cts. ordinary .6¼; fresh pork, best cuts .6¼; mutton .5; lamb .37½ a .62½ a quarter; veal, best cuts, .8; ordinary .6¼; pigs, roasters .81¼ a 1.00; fresh shad .16 a .25 a pair; chickens .62½ a pair; eggs .9 a dozen; butter, favourite prints, .25 a .31¼ per lb.; roll, fresh, .20 a .25; ordinary .12½ a 20.

Vegetable Market—Asparagus, .6¼ to .15 a bunch; apples .31¼ a .50 a peck; lettuce .2 a .3 a head; radishes .2 a .4 a bunch; onions .3 a bunch; cabbage sprouts .12½ a peck; Hanover sprouts .6¼ a peck; potatoes, Irish, .6 a .10 a peck, .25 a bushel; sweat potatoes .12½ a peck; carrots .6¼ a bunch; parsnips .12½ a peck. Dried fruit, apples .31¼ a peck, .4 a quart; peaches .12½ a quart; Cauliflowers 25 a 62½.

CONTENTS OF THIS NUMBER.

On the Diseases incident to Grain—On the Washing of Sheep—An Essay on the Means necessary to accomplish a total abolition of the practice of drinking Ardent Spirits, by Samuel Wyllys Pomeroy—On the Culture of Flax—On the Culture of Red Clover—On the Origin of, and partiality for Tulips—Garden Walks—Fine Hyacinths—Remarks on the Big head in horses—Cure for the Mange and the Distemper in Dogs—Advice to Young Ladies, when and who to marry—Rensselaer School Flotilla—The Drunkard's Tree—Items from late English papers—Boring for Water—Recipes—Editorial, Sale of Cattle, the Season—Prices.

Printed every Friday, at Five Dollars per annum, for
JOHN S. SKINNER, Editor, by John D. Toy.

AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

OF RICH OR FEEDING PASTURES.

Feeding pastures may include such as are equally fit for hay-lands, or for being converted to arable husbandry; their characteristic being, that they are used for feeding stock, and keeping working animals and milk-cows in good condition. We have mentioned in a former chapter, that pasturage for one, two, or more years, is frequently interposed in the course of cropping arable land, to prevent that exhaustion of the soil which is commonly the consequence of incessant tillage crops. The same culture and management that is recommended here for rich grass lands, is equally applicable to them; there being no difference, excepting that the latter are generally considered less suitable for fatting heavy stock, such as large oxen, than rich old turf.

The culture and management of feeding pastures, whether of a few years or perpetual duration, may be considered in regard to those necessary operations that have been already noticed, under the former section,—such as the extirpation of weeds and noxious shrubs, clearing away ant and mole-hills, the application of manure, the time of stocking, the number of the animals, and whether all should be of one or of different species,—the extent of the enclosures, and the propriety of eating the herbage close, or leaving it always in a rather abundant state; all these are questions which it is scarcely possible to decide in a satisfactory manner, by the application of general rules. They can only be resolved, with any pretensions to utility, by a reference to the particular circumstances of each case; for the practice of one district, in regard to these and other points, will be found quite inapplicable to others where the soil and climate, and the purposes to which the pastures are applied, are materially different.

The weeding of pastures should be regularly attended to. Weeds in pastures injure the farmer by the ground they occupy, the seeds they disperse, and sometimes, by influencing the quality of milk, or the health of the cattle. Small creeping weeds cannot be removed on the large scale of a farm; but large perennial plants, such as the dock, fern, nettle; and biennials, such as the thistle, ragweed, together with rushes and coarse tufts, or tussocks of tall oat-grass, should never be permitted to shoot up into flower. The dock ought to be taken out by the root with the dock-weeder, and the others cut over with spadlets or spuds. Nettles may be mown over, as may some other weeds, and some descriptions of rushes and fern is most effectually killed by bruising or twisting asunder the stem, when the frond or herb is nearly fully expanded. Smaller weeds may be mown, and this operation should never be deferred later than the appearance of the flowers. Where the sloe-thorn forms part of the enclosure-hedges, or the English elm, hoary poplar, and some other trees, grow in or around the field, they are apt to send up suckers; these should be pulled up, otherwise they will soon become a serious nuisance. In some parts of England, especially in the central districts, the hedge wastes, from the spread of the sloe-thorn and creeping rose (*Rosa arvensis,*) are sometimes six or ten yards in width.

To prevent the growth of mosses, is one of the greatest difficulties in the management of old pasture lands; by these the finer species of grasses are apt to be overwhelmed, and the coarse sorts only remain. Drainage, and the use of rich composts, are in this case necessary. Harrowing and cross harrowing with a common harrow, or with what are called grass harrows, which go from one to two inches deep, with a sprinkling of grass-seeds afterwards, and some lime or well prepared compost, are the most likely means of destroying the moss, and improving the pasture. Feeding sheep with oil cake, and allowing them to pasture on the land, has also been found effectual for the destruction of moss, and bringing up abundance of grass. But the radical remedy is to plough up such grass lands upon the first appearance of moss, or before it has made any considerable progress, and sow them with corn.

The removal of ant and mole-hills should be attended to during the whole summer. The manner of destroying ants has already been described; mole-hills spread on grass lands may be considered as of service rather than otherwise. These operations, together with weeding, and spreading the manure dropped by the larger stock, should go on together at intervals during the whole summer.

The application of manures to grazing lands, which not being used as hay grounds afford no means of supply, may certainly be considered a preposterous practice, and one that must be ruinous to the other parts of a farm; yet in *The Code of Agriculture* it is stated, that "to keep grass in good condition, a dressing of from thirty to forty cubic yards or cart-loads of compost, is required every four years. The application of unmixed putrescent manure will thus be rendered unnecessary, which ought at least to be avoided, in meadows appropriated for the feeding of dairy cows, from its affecting the quality of the milk." Grass lands kept at an expense of this kind will seldom, it is believed, be found to remunerate a farmer sufficiently. The same thing is recommended (probably from inadvertence or mere following the tract of preceding writers,) in *Dickson's Practical Agriculture,* vol. ii. p. 953. But, excepting the dung dropped by the pasturing animals, which should always be regularly spread from time to time, it may be laid down as a rule of pretty extensive application, that if grass lands do not preserve their fertility under pasturage, it would be much better to bring them under tillage for a time, than to enrich them at the expense of land carrying crops of corn.

Teathing or stacking on the field, or carrying to be consumed there during winter, the provender that ought to have furnished disposable manure for the use of the farm at large, is another practice not less objectionable. It is to no purpose that such a wasteful practice is defended, on dry light soils which are alleged to be thus benefited by the treading of the cattle. During the frequent and heavy falls of rain and snow in winter, there is scarcely any land so dry as not to be injured by the treading of heavy cattle; and were there any thing gained in this respect by this management, it would be much more than counterbalanced by the loss of a great part of the manure, from the same cause. The able writer to whom we have just now referred, very properly disapproves of carting on manure in winter; and for the same reason, namely, the loss of it, which must necessarily be the consequence, he ought to have objected to foddering on the land, or teathing at that season. The practice, however, is but too common in those districts, both in South and North Britain, where the knowledge of correct husbandry has made but little progress. It is equally objectionable, whether the fodder be consumed on meadows where it grew, or on other grass lands. The fodder should, in almost every instance, be eaten in houses or fold-yards, instead of the dung being dropped irregularly over the surface; or, as must be almost always the case, accumulated in some spots sheltered by trees and hedges, to which the animals necessarily resort during the storms of winter.

The time of stocking pastures in spring, must evidently be earlier or later, according to the climate, and in the same climate according to the season; and the state of growth, which it is desirable that the grass should attain before being stocked, must in some degree be determined by the condition and description of the animals to be employed in consuming it, whether they are only in a growing state or approaching to fatness; whether milk cows or sheep, or a mixture of animals of different species. It conveys no very precise idea respecting these points, though the remark itself is just, to say that the herbage should not be allowed to rise so high as to permit the coarser plants to run to seed; and that it is bad management to suffer store stock to be turned upon a full bite. The great objects to be aimed at are, that the stock, of whatever animals it may consist, should be carried forward faster or slower, according to the purposes of their owner; and that no part of the herbage should be allowed to run to waste, or be unprofitably consumed. But nothing but careful inspection of the land and of the stock, from time to time, can enable any grazier to judge with certainty what are the best measures for attaining these objects. "Fatting cattle," says Marshall, "which are forward in flesh, and are intended to be finished with grass, may require a full bite at first turning out. But for cows, working oxen, and rearing cattle, and lean cattle intended to be fatted on grass, a full bite at the first turning out is not requisite. Old Lady-day to the middle of April, according to the progress of spring, appears to me, at present, as the best time for shutting up mowing grounds and opening pastures."

In regard to *the state of the growth of pastures when first stocked,* some distinction should be made between new leys and old close swards. To prevent the destruction of the young plants, whether of clover or other herbage, on the former description of pasture, which would be the consequence of stocking them too early, especially with sheep, they should be allowed to rise higher than would be necessary in the case of old turf; and to secure their roots from the further injury of a hot summer, it is advisable not to feed them close in the early part of the season, and probably not at any time throughout the whole of the first or second season, if the land is to be continued in pasture. The roots of old and firm sward, on the other hand, are not in so much danger, either from close feeding or from the heats of summer; and they are in much less danger from the frosts and thaws of winter.

With regard to *the stock which should be employed,* all soils rather moist and of such a quality, as is the case with rich clays, as to produce herbage suited to the fattening of cattle, will, in general, be more advantageously stocked with them than with sheep; but there can be no other rule for the total exclusion of sheep, than the danger of the rot; nor any other general rule for preferring one kind of stock to another, than their comparative profits.

Whether the stock should be all of one or of different kinds, is another question to be discussed. With regard to a mixed stock, the sentiments and practice of the best graziers seem to be in its favor. "It is generally understood that horses and cattle intermixed will eat grass cleaner than any species will alone, not so much from their separately affecting different grasses, as from the circumstance of both species disliking to feed near their own dung." "Some few graziers follow the old custom of keeping only one kind of stock upon the same ground, whilst others, we think, with more propriety, intermix with oxen and cows a few sheep, and two or three colts in each pasture, which both turn to good account, and do little injury to the grazing cattle. In some cases sheep are a real benefit, by eating down and destroying the ragwort (*Senecio jacobæa,*) which disgraces some of the best pastures of the county, where oxen only are grazed." And in Lincolnshire, where grazing is followed to a great extent, and with uncommon success, as well as in most other districts, the practice seems to be almost invariably, to keep a mixed stock of sheep and cattle on the same pasture, in proportion varying with the nature of the soil and the quality of the herbage.

To estimate the number of animals that may be depastured on any given extent of ground, is obviously impossible, without reference to the particular spot in question; and the same difference exists with regard to the propriety of feeding close, or leaving the pastures rough, that prevails in most other parts of this subject. Though there be loss in stocking too sparingly, the more common and dangerous error is in overstocking, by which the summer's grass is not unfrequently entirely lost.

With respect to the size of enclosures, small fields are much to be preferred to large ones, for heavy stock. Besides the advantages of shelter, both to the animals and the herbage, small fields enable the grazier either to separate his stock into small parcels, by which means they feed more at their ease, or to give the best pastures to that portion of them which he wishes to come earliest to market. The advantages of moderate sized enclosures are well known in the best grazing counties; but the subdivisions are in some instances much more minute than is consistent with the value of the ground occupied with fences, or necessary to the improvement of the stock. In all cases, says Marshal, where fatting cattle or dairy cows make a part of the stock, and where situation, soil, and water will permit, every suit of grazing grounds ought, in my idea, to consist of three compartments. One for head stock (as cows or fatting cattle;) one for followers (as rearing and other lean stock;) and the third to be shut up to freshen for the leading stock.

Large enclosures are in general best adapted for sheep. These animals are not only impatient of heat and liable to be much injured by flies, in small pastures often surrounded by trees and high hedges, but they are naturally, with the exception perhaps of the Leicester variety, much more restless and easily disturbed than the other species of live stock. "Sheep," says Lord Kaimes, "love a wider range, and ought to have it, because they delight in short grass: give them eighty or ninety acres, and any fence will keep them in; confine them to a field of seven or eight acres, and it must be a very strong fence that keeps them in." Though fields so large as eighty or ninety acres, can be advisable only in hilly districts, yet the general rule is nevertheless consistent with experience, in regard to all our least domesticated varieties.

With respect to the propriety of eating the herbage close, or leaving it rather in an abundant state, an eminent agriculturist observes, that there seems to be a season, some time during the year, when grass lands, particularly old turf, should be eaten very close, not merely for the sake of preventing waste, but also for the purpose of keeping down the coarser kinds of plants, and giving to the pastures as equal and fine a sward as possible. The most proper period must partly depend upon the convenience of the grazier; but it can hardly be either immediately before the drought of summer or the frost of winter. Some time in autumn, when the ardent heat of the season is over, and when there is still time for a new growth before winter, may be most suitable for the land itself, and generally also for the grazier, his fat stock being then mostly disposed of, or carried to the aftergrass of mown grounds. The sweeping of pastures with the scythe, may be employed as a substitute for this close feeding; the waste and labor of which, however, though they be but trifling, it does not seem necessary to incur on rich grazing lands, under correct management.

Fogging pasture lands is a practice which is sometimes adopted in districts where there is a scarcity of winter food. Under that system, fields in pasture are shut up early in May, and continued in that state till November or December, when the farmer's stock is turned in, and continue to pasture, till the May succeeding. Such management, however, can only be advisable on a soil of the driest nature, which will not be injured by poaching in the wettest season. It is practised in a few places in Cardiganshire; but is considered by Thos. Johnes, Esq. of Havod, as being the result of necessity, the farmers not being able to bring sufficient stock to eat it down in season, when its nutritive powers are in their best state.

Water should be provided for every field under pasture; and also shelter and shade, either by a few trees, or by a portable shed, which may be moved with the stock from one enclosure to another. Where there are no trees, rubbing posts are also a desirable addition. In Germany they have portable sheds which are employed both in summer and winter, and generally with a piece of rock-salt fixed to a post for the cattle to suck at.

(From Loudon's Encyclopædia of Agriculture.)

CULTURE OF RAPE.

Rape, colzá, colsat, or *cole seed,* (not the *brassica napus* of Linnæus, but the *B. campestris* of Decandolle, and which he thinks a distinct species,) is considered an important article of Flemish agriculture. It is sometimes sown broad-cast, but the general and approved method is, by transplanting, which they allege, and apparently with great justice, to have many advantages: one is, that the seed-bed occupies but a small space, whilst the land which is to carry the general crop is bearing corn. By having the plants growing, they have time to harvest their corn, to plough and manure the stubble intended for the rape, which they put in with the dibble, or the plough, from the latter end of September to the second week of November, without apprehending any miscarriage.

The seed-bed is sown in August, and even to the middle of September. In October, or sooner, the stubble is ploughed over, manured, and ploughed again. The plants are dibbled in the seams of the ploughing, (each furrow slice being twelve inches broad,) and are set out at twelve inches distance in the rows. Instead of dibbling upon the second ploughing, in many cases they lay the plants at the proper distances across the furrow, and as the plough goes forward, the roots are covered, and a woman follows to set them a little up, and to give them a firmness in the ground where necessary. Immediately after the frost, and again in the month of April, the intervals are weeded and hand-hoed, and the earth drawn up to the plants, which is the last operation till the harvest. It is pulled rather green, but ripens in the stack; it is threshed without any particular management; but the application of the haulm, or straw, is a matter of new and profitable discovery: it is burned for ashes, as manure, which are found to be so highly valuable beyond all other sorts which have been tried, that they bear a price as three to one above the other kinds, and it is considered, that upon clover, a dressing of one-third less of these is amply sufficient.

Extract to the Editor, dated

J. S. Skinner, Esq. *Utica, April* 25, 1830.

I adopted your opinion as to raising first rate horses on my farm, and sent four mares to the stud Commodore, one hundred miles distance, Chas. A. Williamson, Esq. Geneva, although I owned a share in Utica Duroc, allowed here to be the handsomest son of old Duroc. I enclose a late advertisement concerning the horse. We (in this state,) are improving our stock of horses, the celebrated Eclipse proves as superior as a foal getter, as he did on the turf, and I have seen several elegant colts of his, going on to the west part of our state. I find the blood horse equal to all the business of a farm; they move quicker, have more spirit, and mine are more hardy than the common horse. In the spring of 1786, I procured a mare, descended from Delancey's Wildair, and I have that breed mixed with a little Canadian blood, from the best stallion perhaps, ever bred in Canada, procured in that province by Capt. Duncan, of the British army, about forty years ago. My horses are as cheaply kept as oxen, will do double the work, and in hot weather six times; where labour is high, from $10 to $12 a month, it is bad economy to work oxen; they cannot stand hard work in hot weather. In 1815, of three ox-teams I commenced the season with, I had not a sound one by July, an ox in each was overheated and spoiled for work. In Scotland, where agriculture is well understood, oxen are abandoned for labour; when the New England man gets his farm well under way, the stumps and roots out, in this state, he exchanges his oxen for horses, almost invariably; the former were useful among the rocky hills of New England, but in the middle states are not so.

In an extract from the Farmer's Library of Useful Knowledge, I see it stated, that the superiority of the Clydesdale horses, was attributed to mixing the blood-horse from the Duke of Hamilton's stud; the foundation of that superior breed was laid by Sir James Stuart, of Coltness, who imported a stallion and six mares from Flanders; when I left Clydesdale in 1785, these were not mixed, but afforded the best farm horses in the kingdom, and are now in request throughout Great Britain, the spirit of this excellent gentleman has proved a mine of wealth to his district; he introduced ploughing matches, the superiority of the Scotch plough enables the farmer to save much team. In one of the last numbers of the New York Farmer, is a cut of Wilkie's plough, perhaps the best now in use, Wilkie is a Clydesdale man. About 15 years ago, I endeavoured to introduce the Scotch plough, made by Burden, into this country; several were sent to Washington; I believe that the honorable Mr. Barbour of Virginia had one. Several years after I observed in your excellent paper, the result of a trial made by General Macomb, of several ploughs, among which was one called Burdens, stated to require 4½ cwt. by the Dynometer, as this was at least 1 cwt. more than the real Burdens plough ever required, in the numerous trials made here with furrows of an equal number of cubic inches, the soil at Washington must be different from ours, or the plough (if Burdens,) not in good order. Mr. Davis furnished all the ploughs, and it would have been strange had his own proved inferior. You perceive that I am getting into the *cacoethes scribendi.* I regret the little taste for reading among our farmers, in all other matters they seem intelligent and enterprising, but seem obstinately bent against improvement in their own business. Alex'r Coventry.

HORTICULTURE.

(From the New England Farmer.)

The Massachusetts Horticultural Society have received from M. Vilmorin, of Paris, (one of its honorary members,) some seeds of the following rare plants. M. V. is the editor of a periodical paper devoted to Horticulture, and proprietor of an extensive and celebrated nursery.

Kitchen Garden Seed.

1. Cardoons, with reddish colored stalks.
2. Violet colored Carrot.
3. Italian Gourd.
4. Palm Cabbage.
5. Curled Cabbage, with variegated prolific leaves.
6. Alpine Strawberries,—without runners,—fruit white.
7. Cantelope Melon, called Prescot, with a white rind.
8. Picridie cultivee.
9. Tetragone.
10. Twisted Radish of Mans.

Flower Seeds.

11. Clarckia Pulchella.
12. Schizanthas pinnatus.

I find that all the above named plants are described in the Bon Jardinier which *Mr. Vilmorin* has presented to the Massachusetts Horticultural Society. That work is held in the highest estimation in France. It was commenced in 1770, by Anon, and is now published annually, in one volume of about 1000 pages, by A. Poiteau, Professor of the Horticultural Institute of Fromont, and P. P. A. Vilmorin,—the gentleman to whom we are indebted for this very acceptable addition to our Library. He is the royal seed merchant in Paris, and the proprietor of an extensive and celebrated nursery.

Cardoons.—This is a hardy perennial plant, a native of Candia, introduced into England in 1658, and known in all the European languages under the same name. It resembles the artichoke,—*Cynara scolymus,* but rises to a greater height. The tender stalks of the inner leaves, rendered white by earthing up, are used for stewing, and for soups and salads in autumn and winter.

The species named in the list of seeds is thus described in the Bon Jardinier. "It was received by Mr. Vilmorin, from *M. Delacour Gouffe,* Director of the Botanic Garden of Marseilles; the leaves are like those of the artichoke, with reddish coloured stalks, without prickles at the ends, very smooth and excellent."

Violet Carrot;—very large, excessively sweet; sent from Spain to *M. Vilmorin,* by *M. le Marquis de la Bendana.*

Italian Gourd, or Squash.—Sent from Italy by the Duke of Orleans, in 1820. Cultivated as an excellent legume. The young fruit is cut as soon as the flowers fall off; they are then about four or five inches long, and one or two in diameter; in this state they are cooked. The ripe fruit is from 15 to 18 inches long, and 5 or 6 in diameter.

Palm Cabbage; it is thus named, because its long and narrow leaves, of a deep green, are united at the top of a tall stock.

Curled Cabbage with variegated prolific leaves, is a variety of the Scotch Kale, and received its name from the foliaceous productions, implanted upon the nerves of the leaves, and their different shades of color.

Alpine Strawberry,—without runners, fruit white, and is called "*a new variety.*"

Picridie cultivee, or Picridiam vulgare, is a native of the south of France. An annual plant which is cut as small green salad, like wild chiccory or succory; it can be cut two or three times; it is sown in drills, in March, and successively during the summer. This salad is much esteemed in Italy.

Tetragonia expansa, or New Zealand Spinage. Described in the New England Farmer.

Clarckia Pulchella.—This plant is thus described in the Bon Jardinier for 1830. It is a new genus of the family Onagræ, the neighbour of the Œnothera, and appears to differ from it, by having four fertile and four sterile stamens. The only species of this new genus is that above designated. It is an annual plant, much branched, from one to two feet high, erect, and forming a rounded head. The branches are slightly geniculate, covered with very short hairs, procumbent, hoary; leaves linear, obtuse, two or three inches in length, alternate and clothed, when young, with short white hairs, like the branches; these are terminated by a great number of superb flowers, two inches in diameter, of a brilliant violet rose, or purple color; they are composed,—1st, of an oblong calix, which is divided to the base, into four leaflets spatulate, and bent back upon the ovary,—2d, of four clawed petals, which are divided into three spatulate lobes opening in the form of a cross,—3d, of eight stamens, four of which are long, with large fertile yellow anthers, at first oblong, and ultimately rolling, in crosses, upon themselves, and four others which are short and sterile,—4th, of an oblong ovary, surmounted by a style longer than the stamens, and terminated by a large stigma, of four foliaceous lobes,—5th, of a pericarp, which is a fusi form capsule, an inch in length, of four sutures, four cells and four valves, and contains many rough oval seeds.

This magnificent plant is a precious acquisition for the borders and compartments of gardens; its culture appears to require no other care, than to be sown in April upon beds and managed like the balsams and China Asters. It is a native of the banks of the Columbia river, and has been cultivated in England but two years. We have seen it in flower, in *M. Vilmorin's* garden, who has collected sufficient seed this year to enable him to offer it to a great number of amateurs, who may be anxious to ornament their gardens with it.

The following account of this admired American stranger, extracted from the Bulletin des Sciences Naturelles, of February, 1829, is contained in the Annales D'Horticulture.

"The Clarckia Pulchella is one of the most beautiful ornamental plants, with which the gardens of Europe have been enriched, for a number of years. The brilliant color, the remarkable form, the singular elegance of the flowers, and the facility with which it may be cultivated, presages for it the fortune of *Coreopsis tinctori.* We are assured that this plant has been considerably multiplied in the gardens of England, and it is now cultivated in that of Fromont."

It was introduced into England by Mr. *Douglas,* who explored the borders of the Columbia river during the years 1825 and 1826, under the auspices of the London Horticultural Society. It produces flowers from May to September.

Although this superb flower appears to have been first cultivated in England, it was detected by Captains *Lewis* and *Clark,* on the Kooskooskee and Clark's rivers, branches of the Columbia, in their expedition across the Rocky Mountains, to the Pacific ocean during the years 1804-5-6, and a description and colored engraving of it was given by *Pursh,* in his Flora of North America, published in London in 1814, which were taken from the Herbarium of Captain *Meriwether Lewis.*

That distinguished traveller had collected materials for publishing a work, on the natural history of the country, through which he passed, in the perilous expedition to the mouth of Columbia river, and had made arrangements for executing it, in Philadelphia, whither he was repairing from St. Louis, when, in a moment of inexplicable frenzy, he perished in a log hut, amidst the wilds of Tennessee.

Thus science has been deprived of the valuable fruits of his extensive researches; but it is hoped that his manuscripts and specimens still exist, and that some patriotic naturalist, will yet complete a work, which could not fail to be honorable to himself and his country.

Schizanthus pinnatus.—From Chili, annual, stalk branched, from fifteen to twenty inches high, a little hairy; leaves winged, leaflets oblong, decurrent, and pinnatified; flowers interminal panicles, color bright lilac, inner margin yellow speckled with purple, and surrounded by four violet spots. It may be sown in a green house in the autumn, for winter cultivation or in a hot bed in the spring.—The plants must be taken up and transplanted with great care. It was introduced by *M. L'Hote* in 1826,—one species.

(From the New York Farmer.)

Report of the Visiting Committee of the New York Horticultural Society for 1829.

The Committee appointed to visit the Gardens in this vicinity, for the purpose of enabling them to lay before the society an account of the general state of our Horticultural improvements,

Report:—That they have collected, from various sources, whatever correct information it has been in their power to obtain on this interesting subject; and with a view to facilitate the objects of the society, they offer such observations as they think may be useful in assisting our further improvement in the cultivation of the various articles connected with the present state of our horticultural progression. As no better evidence can be obtained of the horticultural products cultivated in our vicinity than the actual exhibition of the various articles themselves, as offered for sale in our public markets, considerable attention has been paid to this part of the subject, and from the great variety, the abundance and cheapness of the whole, as well as from the high state of cultivation in which the generality of our market gardens are now kept, it appears evident that our improvements in Horticulture are advancing with a very successful progress. To allude to all the particulars in which these are conspicuous, would exceed the limits of the present undertaking. Yet our recent improvements in the culture of Cauliflower and Cape Broccoli, deserve special notice, as it appears evident our markets, instead of being supplied as formerly with these vegetables for only a few months, are now supplied with them in every month of the year. It may be gratifying to every lover of horticultural improvements to refer to those valuable reports on our vegetable markets, as published monthly in the New-York Farmer and Horticultural Repository, as it will there be seen that our markets have been lately supplied with both these vegetables in fine order and of excellent quality during a period of more than six months, including that season of the year the least propitious for affording many of the more delicate productions, viz. from the month of September, 1828, until the month of April of the present year. In the succeeding month of May, our earlier Cauliflowers again appeared in market, and the supply continued until July, in which month the supply of Broccoli recommenced, and still continues in fine order, accompanied as in last year with fine specimens of the Cauliflower.

Our cultivation of the Peach is also succeeding in a degree approaching to the prosperity of former years, and our markets, during the past season, have been supplied with great quantities of this delicious fruit, at from one to three dollars per bushel.

Our cultivation of the choicest varieties of the Melon is extensive and becoming well understood; and our supplies are so abundant that the finest sorts can frequently be purchased at a few cents each.

It does not appear that the cultivation of the Grape Vine has yet been commenced upon any proper plan for the supplying of our market, although there are abundant evidencces of the practicability of growing its fruit in abundance; witness the fine crops produced in our town gardens, from one of which Dr. Hossack has taken two half bushel baskets full of the "White Muscadine Grapes," on the morning of our late anniversary, which, with similar samples from various other situations, decorated our tables and regaled our palates on that occasion. Perhaps a handsome premium offered by this society to the first cultivator, who would raise a certain quantity for the supply of our markets, would be attended with as beneficial effects as has been their encouragement given for the culture of "Broccoli," &c.

The gardener, who first discovers and publishes to the community the most successful practical mode of cultivating any new plant or fruit, or superior vegetable production, performs a far more valuable, and generally more difficult service in the advancement of horticulture, than those who merely introduce or only partially succeed in the cultivation of the article.

Neither are the practical labors of our members, nor the publishing of their results, &c. alone calculated to advance the art and science of horticulture. The beneficial effects of the excellent discourses, which have been delivered by those eminent members of our society at the anniversary meetings, upon the history, the importance of the art and science, as well as upon the more elevated views of "The moral and intellectual resources of Horticulture," are inestimable. Our minds are as susceptible of valuable improvements by the writings of such men, as the plants we cultivate are by the labours of our hands. And as it is certain that no eminent degree of horticultural refinement can ever be obtained by those whose minds are wrapt up in ignorance, surely every means connected with our society calculated to enlighten the mind or elevate the soul ought to be held in a much higher degree of estimation than has hitherto been paid to this inestimable species of contribution towards our intellectual as well as moral science.

Your committees have visited recently the chief part of all the market gardens in this vicinity, and have found them well stocked with the following vegetables, being laid in at the approach of severe weather for winter and early spring use, viz. Cauliflowers, Broccoli, Savoy, and other Cabbages, Beets, Carrots, Parsnips, Turnips, Salsify, and Celery, Parsley, Leeks, Lettuce, common Sallad and Spinnage are also abundant and in fine order for being slightly protected when necessary for winter and spring use. In garden frames placed upon the natural ground in sheltered situations, are to be seen Lettuces in various stages of growth for present and successive supplies. Others are planted in the same way with Cauliflowers, and early cabbage plants, to be set out early in spring for table use in May and June. Neither these nor early Peas, &c. are sown or set out for good in the fall or winter months, as is in the practice recommended by English writers on gardening, *where*, according to the best authenticated accounts, with which we are acquainted, the arrival of such articles at maturity, in the natural ground in the ensuing season, is nevertheless later than with us.

In the article of cabbage, particularly, we know of no country, where a more abundant supply of well formed, sound, firm headed sorts are to be met with, superior to those raised in this vicinity for the supply of our markets, especially during the whole of our winter season the very period of all others in which their produce is most acceptable; and it is certain that in no vegetable whatever do our markets more excel than in that of the finest varieties of headed cabbage.

With respect to the process of forcing fruit or vegetables for the purpose of obtaining a supply at an earlier season than that in which they arrive at maturity in the natural ground, it does not appear there is much attention paid to it by our practical gardeners, owing, probably, to the very limited demand for articles raised in this way.

Perhaps the long continuation of the very abundant supplies of all the most delicious garden products raised in the natural ground, prevents our citizens from relishing an uninterrupted continuation of such a rich profusion. Nor need their taste, in this respect, at all be wondered at. Few would desire to partake all the days of their life at a continual feast.—Changes are often more agreeable where the alteration is calculated to gratify even by the diminution of things in some respects of superior qualities, than an uninterrupted enjoyment even of the finest thing without variation. Should their taste, however, alter, abundant extra supplies of fruit, vegetables, &c. could be grown with the greatest facility. This opinion is entertained with much confidence, from the experiments among us already had; and warrants the belief, that in this department of Horticulture there is room for the attention of our practical men; and with their success it is believed an enlightened public will be proud, and ever ready to patronise their exertions.

With respect to the state of private gardens, it does not appear that the same spirit of improvement has been extended to them in a similar degree to that exhibited in our market gardens. And although this is a matter of less consequence to the public, yet we think a more refined taste for the improvement of suburban and country residences might have been met with; some of them, it is true, are well stocked with a rich variety of choice fruit; others are accompanied with excellent kitchen gardens, and a few are ornamented with the decorations of the lawn, pleasure grounds, hot-house, green-house, &c. and the whole kept in good order.

The introduction of cedar hedges, as exhibited around the premises of the Lunatic Asylum, at Bloomingdale, under the charge of Mr. Scautlelery, attracted our particular attention. They are introduced upon a scale that would extend several miles in a direct line. They are neatly kept, and contribute in an eminent degree to the beauty, as well as advantage (by their shelter) of the place; and although their long unbroken continuation along each side of the walks may not be in so correct accordance with the modern rules of landscape gardening, yet they form a very interesting prospect, particularly during the winter season.

Upon the whole, we are of opinion that our Horticultural improvements have been commenced, and are advancing in the most propituous direction—and whoever recollects the former state of our markets, and could contrast their supplies with those of the present day, need be at no loss to form a tolerable estimate of the value of the labors, and influence of this society.

The above observations are made particularly in reference to the state of horticulture in our vicinity; and in conclusion we would briefly notice the very extensive influence which a taste for horticultural improvements is now exciting throughout our country generally. The great importance of the horticultural products of such a country as this, is becoming more generally appreciated, and understood than formerly; and this circumstance is opening a wide field for succesful operation in the art and science of American gardening. Within the last twelve months there have been formed three new horticultural societies in the interior of our state, and similar institutions have also recently been formed in the States of Massachusetts, and Pennsylvania. Great benefits may be expected to accrue from the influence of these societies, in impressing the minds of our yeomanry with the great importance of their attending more particularly to the improvements of their gardens and orchards, as well as in convincing them of the fact (not so well understood as it should be) that they enjoy a soil and climate eminently well calculated for growing every valuable species of horticultural productions.

How far (if at all) the successful progress of this society may have operated as an inducement to the formation of these new societies is not known to us, but we are well convinced of the great importance of the reciprocal benefits which the horticulturists of our country will derive from these and every other additional institution of the kind; and we appreciate in a high degree the increasing advantages of that more extensive horticultural intercourse, which the present prospect affords good grounds to anticipate.

CHARLES OAKLEY, WILLIAM WILSON,
JOHN GROSHON, WILLIAM CURR,
ABRAHAM HALSEY, FRANCIS COOPER.

(From the New England Farmer.)

STRAWBERRIES.

At the Hall of the Massachusetts Horticultural Society on Saturday, 17th ult. was presented by *William Pratt*, Jr. a specimen of Keens' Seedling Strawberry; this is the first sample of this very valuable variety that has been sent for inspection, and we are inclined to think the first raised in the United States: its size was large, flavor very fine, resembling the pine apple in taste and perfume, pulp medium, hard, and quite melting. As this variety will be one of our greatest favorites, and a leading strawberry to cultivate both in private and market gardens, we would recommend copying the whole history and description from the London Pomological Magazine for the information of the public.

THE KEENS' SEEDLING STRAWBERRY.

Keens' Seedling. *Hort. Trans. vol. v. p.* 260. *t.* 12. *Fruit. Cat. no.* 64.

Keens' New Pine,
Keens' Black Pine, } *of some Collections.*
Murphy's Child,

Perhaps no new fruit has enjoyed so great a degree of celebrity, upon its first appearance, as that which is now represented; and it may without impropriety be added, that few have had greater claim to reputation. The publication of a figure in the transactions of the Horticultural Society, the exhibition of fruit at their meetings, and the rapid dispersion of many thousand plants throughout the country, either by public or private channels, have carried the fame of Keens' Seedling to the remotest corners of Great Britain—and its peculiar excellence has enabled it to maintain the station in public opinion which it so acquired.

Its great merits are, that it is very large, very good, and very prolific. It forces better than any other, carries extremely well, and bears its fruit high enough above the earth to keep it free from the soil. No strawberry has the same vigorous appearance as this. Its deep green broad leaves, and stout flower-scapes, attest a healthiness of constitution which is scarcely equalled by any of its class, except the Old Pine; and if Keens' Seedling be inferior to that in flavor, it is much more than equal to it in size and productiveness.

It was raised from the seed of Keens' Imperial, by Mr. Michael Keens, a market gardener at Isleworth.

The following is the account given of it in the Horticultural Transactions:—

"A most excellent bearer, ripening early, soon after the Scarlets, and before any other of the Pines. The *fruit* is very large, round or ovate, some of the largest assuming a cock's-comb shape—when ripe, of a very dark purplish scarlet next the sun, the other side paler, slightly hairy. *Seeds* (grains) a little embedded in the polished surface of the fruit, which has usually a furrow at the apex. The *flesh* is firm, solid, scarlet, without any separable core, tolerably high flavored. The *Calyx* is of moderate size, hairy, incurved. The *Footstalks* of the leaves are tall, slightly hairy. The *Leaflets* very large, roundish, for the most part flat, reclined, of a very smooth, shining dark green, with coarse serratures, which are large and rounded. The *Runners* are small, numerous, greenish yellow, and slightly hairy. The *Scapes* are of moderate length, sometimes very short, branched, with short, weak, clustered peduncles, middle-sized, opening early."

RINGING FRUIT TREES.

Having lately seen in the garden of *Nathan Bridge, Esq.* of Charlestown, the effects of ringing fruit trees, with a view to the early production of fruit, it occurred that something on the subject might be seasonable. The following are the directions for this process, given in Dr. Thacher's orchardist.

Method of forcing fruit trees to blossom, and bear fruit.

"With a sharp knife cut a ring round the limb or small branch which you wish should bear, near the stem or large bough, where it is joined; let this ring or cut penetrate to the wood. A quarter of an inch from this cut, make a second like the first, encircling the branch like a ring a quarter of an inch broad between the two cuts. The bark between these two cuts must be removed, clean down to the wood; even the fine inner bark, which lies immediately upon the wood, must be scraped away, until the bare naked wood appears, white and smooth, so that no connexion whatever remains between the two parts of the bark. This barking, or girdling, must be made at the precise time when, in all nature, the buds are strongly swelling, or about breaking out into blossoms. In the same year a callus is formed at the edge of the ring, on both sides, and the connexion of the bark is again restored, without any detriment to the tree or the branch operated upon. By this simple operation, the following advantages will be obtained. 1. Every young tree, of which you do not know the sort, is compelled to show its fruit, and decide sooner whether it may remain in its present state, or requires to be grafted: 2. You may thereby, with certainty get fruit of a good sort, and reject the more ordinary. The branches so operated upon are hung full of fruit, while others that are not ringed, often have none or very little on them. This effect is explained from the theory of the motion of the sap. As this ascends in the wood and descends in the bark, the above operation will not prevent the sap rising into the upper part of this branch; but it will prevent its descending below this cut, by which means it will be retained in and distributed through the upper part of the branch in a greater portion than it could otherwise be, and the branch and fruit will both increase in size much more than those that are not thus treated. The twisting of a wire or tying a strong thread round a branch has been often recommended as a means of making it bear fruit. In this case, as in ringing the bark, the descent of the sap in the bark must be impeded above the ligature, and more nutritive matter is consequently retained, and applied to the expanding parts. The wire or ligature may remain in the bark. Mr. Knight's theory on the motion of sap in trees, is, "that the sap is absorbed from the soil by the bark of the roots, and carried upwards by the alburnum of the root, trunk and branches; that it passes through the central vessels into the succulent matter of the annual shoots, the leaf-stalk and leaf; and that it is returned to the bark through certain vessels of the leaf-stalk, and descending through the bark, contributes to the process of forming the wood. A writer in the American Farmer, says he tried the experiment of ringing some apple, peach, pear, and quince trees on small limbs, say from an inch to an inch and a quarter in diameter. The result was, the apples, peaches and pears were double the size on those branches than on any other part of the trees: in the quinces there was no difference. One peach, the Heath, measured on a ringed limb, in circumference, 11¼ inches round, and 11¾ inches round the ends, and weighed 15 ounces. The limbs above the ring have grown much larger than below it. If the ring be made so wide that the bark cannot unite the same season, the branch will perish.

CATTERPILLARS.

J. S. Skinner, Esq.

To prevent their destructiveness to either fruit or ornamental trees—you need only surround or encompass them with one or more strands of hair rope well untwisted.

One who knows, having tried the experiment.

RURAL ECONOMY.

CIDER.

The *Hereford Journal* contains a communication from a Mr. Knight, on the efficacy of finely levigated charcoal in preventing excessive fermentation of cider. The *Hereford Journal* in noticing this communication says, "In reply to several correspondents, we state, that no injurious effects whatever can result to cider from the employment of charcoal as directed by Mr. Knight, either in flavour, colour, or quality, and the cheap and simple, and therefore valuable application, may be adopted with the greatest confidence as to these important points. We are indebted to a friend for a communication which ought to be generally known. more particularly as his father, who thirty years ago made cider which *then* often sold for 20*l.* a hogshead, always used and recommended it. It was his custom to add to each mill full of apples, one or two quarts of very small gravel *stones,* strewed over the apples; these mixed with the fruit, and acted mechanically under the roller, to crush and tear the rinds and kernels, which contain the essential oil that communicates the fine flavour to ciders, an operation, the value of which every maker of the best ciders can fully estimate."

REARING POULTRY.

From an interesting communication in the *Southern Agriculturist,* by a lady, we gather the following directions. Poultry of a middling size and a black color are the best. Fowls too fat do not lay abundantly. No profit in raising fowls if you have to buy grain.—They should be fed early in the morning, and about sunset. Regularity of feeding both in time and place, is of great importance. Cleanliness and shelter from storms and winds, are essential to their health. Clean water is a preventive of the pip. The fowl-house should be often cleansed and perfumed with herbs: Straw, in the nest, changed every ten or fifteen days.—Hay is better than straw, not so liable to breed vermin. Ashes and sand should be convenient, where they might roll and trim their feathers. To make them lay in winter, they should be shut up in a warm place. Boiled potatoes and turnips are cheap and good food. Melons and salad are refreshing in summer. Young hens should be put to set in a quiet place. Eggs may be preserved by a coat of varnish; by pouring over them warm mutton suet so as to fill up the cavities between them, by surrounding them with a paste of ashes and strong brine, or by immersing them in water, containing a solution of salt and lime. When setting, hens frequently require fresh and clean water.

LADIES' DEPARTMENT.

(From the Jouroal of Health.)

Infancy has been called the spring time of life; and, certes, the comparison is a just one. The alternate sunshine and shower, and shifting breezes of a vernal day, are fit emblems of the rapid transition from smiles to tears, from playfulness to angry passion, in the young being. As the spring gives promise of the flowers of summer and the fruits of autumn, so does infancy exhibit those traits out of which we picture the youth and future man. Exuberance is the leading characteristic both of the age and the season: and hence the watchful care required of those who would superintend the growth in either case—to repress rank luxuriance, and give to the several parts in the economy of each, that bias and direction which it is desired they should take at a more advanced period. Noxious weeds are now to be destroyed, either by immediate eradication; or if this should endanger the germs of good and profitable plants near them, they must be more gradually restrained in their growth, until they finally wither and decay. So it is with the more evil propensities of human nature,—they must be early checked in their display, until, by forced quiescence, they cease to possess a dangerous activity, and become nearly harmless.

In infancy and adolescence the fluids abound, and circulate with great rapidity; and are directed to all parts, for their growth and increase. So constant is this expansion, that if it be at all retarded in one direction, it is increased in another—and hence irregularity of distribution is soon followed by deformity. Curtail the freedom of a child's movements by allowing or keeping one side bent, and the other is soon bowed out to undue size—let a ligature be applied on a limb, or round any other part of the body, so as to prevent the growth beneath, and the portion above will be in excess, and adverse to symmetry. Just as when we notch a tree, by peeling off a circle of the bark, or surrounding a branch with a band so tight as to prevent the passage of the sap, the parts above wither, but immediately beneath the band or notch there is an excrescence—a rough bulging ring—a true vegetable deformity. As the gardener is well aware, that plants of the most rapid growth and abundant in juices, are the shortest lived—most readily nipped by frost, or parched by the sun,—so ought a parent to be aware, that a child of the fleshiest habit, most abundant in blood and other fluids, is far from being the most robust or exempt from the common causes of disease. How criminal then must be the conduct of those who treat the young being like a hot-house plant, and force it, by much and stimulating food and indulgence of all its senses, to premature development of body and precocity of thought. By such conduct they make a pigmy, which may at first astonish us, but from which we soon turn in disgust, to contemplate human nature, in the full and enlarged possession of those physical and mental endowments, which time and an assiduous cultivation of the faculties can alone bestow.

It is in early life, in the tender years of infancy, that we must countervail the tendency to hereditary disease, whether it consists in corporeal deformity or mental obliquity. Impressions, of whatever nature, are, at this time, easily made and often permanently retained. We have already alluded to the distortions to which want of care subjects the body. False perceptions, by which the brightness of charitable feeling in after life is sullied and darkly clouded, often have their origin from early neglect or false tenderness. How many melancholy examples of excessive fear of supernatural agencies, superstitious and absurd beliefs, envy, prejudice, vindictive passion, overbearing demeanour, and offensive pride, are strictly referrible to the indolent yieldingness of a mother, and the gossip of an idle and ignorant nurse. The first painful feeling created in the breast of Byron, while yet a child, was by the angry taunts of his mother at his deformed foot; and to this he referred his estranged filial affections in after life. Alfieri, the celebrated Italian dramatic poet, attributed his deep-rooted aversion from every thing French, to his occasionally seeing, in early childhood, an old marchioness of that nation, with rouged face, tasteless finery, and affected manners, among his mother's visitors.

(From the Journal of Health.)

BEAUTY—CLOTHING OF CHILDREN.

When we observe the extreme anxiety of mothers to improve the beauty and impart grace to the forms of their daughters, we cannot but pity the ignorance and infatuation which induce them, in too many instances, to resort to means calculated much more effectually to defeat the object so ardently desired, than to promote it. A very slight knowledge of the human frame, and of the manner in which it is influenced by external agents, would teach them the absurdity of all attempts to supply, by artificial means, what can result only from the unassisted efforts of nature. In infancy as well as in adult life, the first and most important object of consideration should be to preserve and promote the health and vigour of the body—since with its health we necessarily maintain its symmetry and improve its beauty.

Bodily deformity, in particular, unless congenital, or the effect of unavoidable disease or accident, is in the great majority of cases produced by nursery mismanagement, and the employment of the very means which are resorted to in order to prevent it.

The fact cannot be too often repeated, nor can it be too seriously urged upon parents, that the foundation of a graceful and just proportion in the various parts of the body must be laid in infancy. A light dress, which gives freedom to the functions of life and action, is the only one adapted to permit perfect, unobstructed growth—the young fibres, unconstrained by obstacles imposed by art, will shoot forth harmoniously into the form which nature intended. The garments of children should be in every respect perfectly easy, so as not to impede the freedom of their movements by bands or ligatures upon the chest, the loins, the legs or arms. With such liberty, the muscles of the trunk and limbs will gradually assume the fine swell and development, which nothing short of unconstrained exercise can ever produce. The body will turn easily and gracefully upon its firmly poised base—the chest will rise in noble and healthy expanse, and the whole figure will assume that perfectness of form, with which beauty, usefulness and health are so intimately connected.

Whatever is worth doing at all is worth doing well; but it is impossible to do any thing well without attention.

A HINT TO THE LADIES.

"Madame de Genlis received me with a kindness, a cordiality, that had all the naivette and freshness of youthful feeling and youthful vivacity. There was nothing of age in her address or conversation; and vigour, animation, a tone of decision, a rapidity of utterance spoke the full possession of every feeling and every faculty; and I found her in the midst of occupations and pursuits, which might startle the industry of youth to undertake or to accomplish.

"When I entered her apartments, she was painting flowers in a book, which she called her 'herbier sacre,' in which she was copying all the plants mentioned in the Bible. She showed me another volume which she had just finished, full of trophies and tasteful devices, which she called l'herbier de reconnaisance.—'But I have but little time for such idle amusements,' said Madame de Genlis. She was, in fact, then engaged in abridging some ponderous tomes of French memoirs, in writing her Journal de la Jennesse,' and in preparing for the press her new novel 'Les Battueers,' which she has since given to the world. Her harp was nevertheless well strung and tuned; her piano forte covered with new music, and when I gave her her lute, to play for me, it did not require the drawing up of a single string.—All was energy and occupation. It was impossible not to make some observation on such versatility of talent and variety of pursuits.—'Oh! this is nothing,' said Madame de Genlis, 'what I pride myself upon, is knowing *twenty trades, by any of which I could earn my bread.*" [*Lady Morgan's France.*

MISCELLANEOUS.

HINGES, SCREWS.

A Boston paper says there is a mechanic in that city, who possesses the secret, which has been heretofore only known in England, of constructing an apparatus to turn out screws, with little labor and great rapidity. The same mechanic has invented a plan for the casting of hinges, by which half the ordinary labor will be saved, and better hinges produced. As the raw material in this country is cheaper than in England, it is supposed that 75 per cent. may be saved by the application of the new invention. The same paper adds, "the secret of this invention is now for sale to the capitalists of this country."

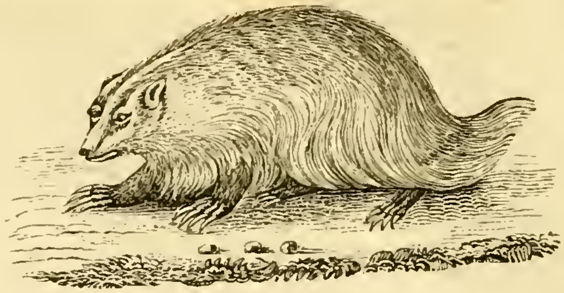
Useful Invention.

Under this head, the New Orleans Bee, mentions that a machine has been invented by a Mr. Renoir in that city which is to be applied to a gig, and in cases of the horse running away, can be used to stop the wheels of the vehicle and release the animal from the harness, in an instant. The shafts of the gig do not fall, but remain in the same position as when upheld by the harness; and the machine is said to be of so simple construction that a child may use it.

Coal.

The President of the Delaware and Hudson Canal Company, offers to furnish first quality Lackawanna coal, at Bolton, one mile from the Hudson, and ninety miles above New-York, at six dollars per ton, and five dollars and fifty cents for second quality, payable on the 10th November and 10th January. Discount for cash, ½ per cent. per month, for quantities of 50 tons and over. Under 50 tons, and not less than a boat load, (about 25 tons,) cash.

It is said that the earliest law enacted in any country for the promotion of anatomical knowledge was one passed in 1540. It allowed the united companies of barbers and surgeons to have yearly the bodies of four criminals to dissect.—*Barrington's Statutes.*



(From the American Turf Register and Sporting Magazine, Vol. 1, No. 9.)

NATURAL HISTORY.

We have given, in a preceding number of our Magazine, the family characters—those, namely, of the *Ursini*—to which the animal we are now about to describe, belongs. The generic characters of the *Badger*, are as follows:

Genus, Meles, Briss. Taxus, Cuv. Upper jaw not much exceeding the lower; grinders forming an uninterrupted series to the tusks; no small subsidiary tooth behind the latter; body of a more lengthened form than in the *Ursi*, and placed lower on the limbs; tail of a moderate length and hairy; a sack under the tail, containing a fœtid humour.

The species which will presently occupy us, is the

AMERICAN BADGER. (*Meles Labradoriæ.*)

Capt. Sabine, was the first naturalist who fairly decided the fact, that the American badger is a distinct species from the European Badger. Mr. Say had, however, arrived at the same conclusion, and applied nearly the same name to it in the journal of Long's Expedition to the Rocky mountains: and Sabine observes, that Schreber, was the first author who considered the American to be a distinct species. But the fact was not generally admitted, until the publication of the appendix to Franklin's journey.

The American badger differs from the European, by being generally smaller and more slenderly formed; its head is full as long, but not so pointed towards the nose; neither is the profile at all similar to the badger of Europe. In the European animals, the outline drawn from the forehead to the nose is quite straight, while in the American, there is a considerable depression on a line with the eyes. There is also a very striking difference between the markings of these animals. In our species there is a narrow white line, running from between the eyes towards the back; the remainder of the superior part of the head is brown, the under jaw and whole of the throat are white. A semicircular brown spot is seen between the ears, and the light coloured parts of the cheeks. Above the eyes the white marking extends triangularly for a short distance, and below it runs in a line with the eyes towards the fore part of the mouth; yet the whole eye is within the dark colour of the upper part of the head, and this colour runs at the corner of the eye, with an acute angle, into the white.

The European badger has three broad white marks, one on each side, and one on the top of the head, between which there are two broad black lines, including the eyes and ears. All the parts under the throat and jaw are black. The hairs on the upper part, are darker, longer and coarser. In the American, the under are lighter than the upper parts; in the European they are darker. In our animal the legs are of a dark brown; in the European quite black. Notwithstanding the European badger is generally the largest, its dark coloured nails are smaller than those of the American, which are of a light horn colour. The tail of the American badger, too, is shorter than that of the European. Such are the differences in the markings of the two species, as given by Capt. Sabine.

The American badger is a pretty little animal, and its aspect is not unlike that of some small pug-faced dogs. It is found most frequently on the plains adjacent to the Missouri, and its tributaries, as well as on those near the Columbia river. It is not uniformly found in the open country. Lewis and Clark, sometimes observed them in the woods.

The badger has its young in summer, and generally two, three or four, at a litter, which are occasionally brought out to the mouth of the burrow to enjoy the sunshine. These young become capable of procreating when two years old, and the period of their lives is extended to ten, twelve, or fifteen years. If taken when young they are easily tamed, and soon become quite familiar and obedient. The length of the animal is about two feet five inches, including the tail, which measures three inches. The body appears long in proportion to its thickness. The fore and hind legs are short, but remarkably muscular; the fore-paws are provided with the long claws peculiar to the genus; by means of which they can bury themselves with great celerity, even in the hardest soil. Their burrows are deep and extensive; and several individuals have been found inhabiting one excavation. To men it no doubt appears gloomy to live under ground, or to steal forth under cover of the night in search of food; but this is the only mode of life the badger is capable of enjoying, and the only kind of action of which he is susceptible. Within his subterraneous retreat, then, he passes the day in sleepy content, and when night veils all objects in shade, he sallies forth to seek his subsistence. This consists of different sorts of fruits, frogs, insects, and probably some of the smaller animals.

From the solitary and nocturnal habits of this animal, together with its timid disposition, naturalists have had but few chances of examining the peculiarities of its moral character. It is said, however, to be entirely inoffensive, and apparently feeble; but if denied the advantages of swiftness of motion, or great size, nature has in another way provided it with the means of effecting its safety. The long claws on its fore feet are admirably adapted for removing the earth, and the celerity with which it digs its way under ground is really surprising. So much so, that it is entirely fruitless to attempt securing the animal by digging after it. It is only by artifice that the badger can be brought out from its retreat; and this is effected by the aid of dogs, smoke, &c. But when driven to the last extremity, the strength of its jaws and the sharpness of its teeth, enables the animal to inflict the severest injury on its persecutors.

The British naturalists describe the European badger as dwelling in the clefts of rocks as well as burrows. The burrows are represented to be formed of several apartments, with only one entrance; and in the breeding season the animal carries in grass, with which it makes a bed for its young. During the severity of winter it remains in a half torpid state, sleeping on a commodious bed formed of dried herbage.

It is proverbially a cleanly animal, and never soils its burrow. Sly and knowing reynard, who has found this out, and is too idle, or has not the same facilities for constructing to himself a dwelling, frequently dislodges the badger by ejecting his urine into its retreat. The patient animal moves away to a short distance and soon makes for itself another lodging.

Badgers live usually in pairs; but they separate once a year, when the dam is about producing her young. When domesticated, they have been found to be very chilly, and if allowed to range at pleasure about a house, they will scarcely ever quit the fire; indeed, they often approach so close as to burn themselves. In China, badger's flesh is a very common article of food. In Europe, only the hind quarters are eaten, and chiefly in the form of hams. The skin dressed with its hair on, is used for pistol furniture, and the pendant pouches of the highland soldiers are made of it. The hair is also made into brushes for softening and harmonizing the shades in painting, which accordingly are called technically, *sweetening tools*. But a singular property of the hair is, that it will not *felt*, and consequently cannot be used for hatmaking.

The French peasants have a curious method of hunting the badger; it consists in letting into the burrows small bow-legged terrier dogs, trained up to this species of chase, with a collar of bells. The affrighted animal retreats to the furthermost end of its lodgings, which is indicated to the hunters, by the rattling of the bells; the hunters being provided with pick-axes and spades, dig down through the earth, and seize upon the animal; with much precaution, however, for, then it is desperate and will give battle with great earnestness.

There are only two species belonging to the Genus Meles, as follows:

1. Common Badger, *Meles Vulgaris,* Desm. Inhabits throughout the whole of Europe, but is rare every where.
2. American Badger, *Meles Labradoricæ*, Sabine—Godman's American Natural History, vol. 1, page 179.

(Items from late English papers.)

Though moles are partial to fields within the reach of water, they like to have their galleries in dry banks, or the more elevated parts of fields, where they are not in danger of being flooded. An instance in proof of this fell under our observation last winter. In the woods adjoining Shooter's hill there are considerable patches of swampy ground, which are partially flooded in rainy weather. On passing near one of these swamps, we were struck with the unusual size of a mole-hill, which we at first imagined to be an ant's nest.—It was indeed rather a singular locality for a mole hill, moles being seldom found in woods, and much seldomer in swamps; but though it was as large as six ordinary mole-hills, there could be no doubt that it was one. Upon removing a portion of the upper layer of the mould, the reason of its extraordinary elevation was at once explained; a circular gallery having been constructed on the highest part of the mound, and covered only by about two inches' depth of mould. As this gallery was at least two feet above the level of the swamp, it was out of the reach of any common inundation. [*Almanac.*

A polished surface of a building, or a statue, is no sooner made rough by decay than the seeds of lichens and mosses, which are constantly floating in our atmosphere, make it a place of repose, grow and increase, and from their death, their decay and decomposition, carbonaceous matter is produced, and at length a soil is formed in which grass can fix its roots. In the crevices of walls, where this soil is washed down, even the seeds of trees grow, and, gragually as a building becomes more ruined, ivy and other parasitical plants cover it. Even the animal creation lends its aid in the process of destruction, when man no longer labours for the conservation of his works. The fox burrows amongst ruins, bats and birds nestle in the cavities in walls, the snake and the lizard likewise make them their habitation. Insects act upon a smaller scale, but by their united energies sometimes produce great effect; the ant, by establishing her colony and forming her magazines, often saps the foundations of the strongest buildings, and the most insignificant creatures triumph as it were over the grandest works of man.

Dr. Louis Valentia has published the description of a cranium, very remarkable for its dimensions, which is preserved in the cabinet of natural history at Marseilles. The man's name was Borghini, who died in that city in 1616, at the age of 50. He was but four feet in height, yet his head measured three feet in circumference. The bones were thin, and there was an opening, the size of a crown-piece, where the sagittal meets the coronal suture. Borghini's intellects were very weak. When he became advanced in years, he was obliged to have a cushion on each shoulder to support the head.

At one of the recent sittings of the Paris Geographical Society, Mr. Yosi, secretary of the London Medico-Botanical Society, stated that he intends to embark in December next, on his voyage to America. He will first visit the Mississippi and Missouri, will then cross the Rocky Mountains, explore California, and proceed to South America, traversing Mexico. He purposes visiting the capital of Columbia, and thence directing his steps towards Rio Janeiro. He requested from the society such information and instructions as it might choose to give in connection with the objects of his journey, which will consist chiefly of geographical and astronomical observations.—*Lit. Gazette.*

When we look at the viscid material with which spiders construct their lines and webs, and at the rough hairy covering (with a few exceptions) of their bodies, we might conclude that they would be always stuck over with fragments of the minute fibres which they produce. This, indeed, must often happen, did they not take careful precautions to avoid it; for we have observed that they seldom, if ever, leave a thread to float at random, except when they wish to form a bridge. When a spider drops along a line, for instance, in order to ascertain the strength of her web or the nature of the place below her, she invariably, when she re-ascends, coils it up into a little ball and throws it away. Her claws are admirably adapted for this purpose, as well as for walking along the lines, as may be readily seen by a magnifying glass.—*Insect Architecture.*

The purity of water is indicated by its specific gravity. By a late act of parliament it is defined that a cubic inch of water purified by distillation weighs, at the temperature of 62 degrees, barometer 30 inches, exactly 252,458 grains. An imperial pint of perfectly pure water weighs precisely 20 avoirdupois ounces at 62 degrees. Any water heavier than this must be less pure. That the lightest water is the best is an old and true principle. Pliny says that some judge of the wholesomeness of waters by contrasting their weights. Celsus alludes to the same practice—"*nam levis pondere apparet.*" Hippocrates thought that the best water is that which heats and cools in the shortest time; and his echo and expositor, Celsus, affirms the same thing. Hoffman informs us that rivers of a rapid current, or which fall down mountains, afford a purer water than those that are more slow; and hence, he says, that ships coming out of the river Maine into the Rhine draw more water, and sink deeper in the latter, because the waters of the Rhine fall from the highest mountains of the Grisons country.—*Dr. Lardner's Cabinet Cyclopædia.*

The total receipts of the four days of the Birmingham Musical Festival, including donations, was 9,039*l.* 11s. 11d.; to which is to be added the amount received for books, &c.

RECIPES.

ANTIDOTES FOR VERDIGRIS.

If the poison has only been recently swallowed, the patient should be made to take the white of eggs, dissolved in water, in large quantities, and then provoked to vomit. If the white of eggs is not at hand, large quantities of warm or cold water, or emollient liquids of any kind, meat teas, &c., should be poured down the throat, and the larynx should be tickled so as to provoke vomiting. If sickness does not take place, an emetic may be given, provided the pains in the stomach are not very violent, when this may do more harm than good. If the poison has been long enough taken to have passed through the stomach into the intestinal, canal, and violent colics are beginning, if the patient has already vomited much, vomiting again must not be provoked, but glisters should be administered, and oily and mucilaginous drinks should be given, such as milk and water, in abundance.

TO PRESERVE FRUIT.

The apples and pears which arrive here in a dried state from France are thus prepared. The fruit is put into boiling water, in which it is left until it becomes soft. It is then taken out and carefully peeled, the stalk being left on. To prevent any loss of juice, it is placed on a strainer, under which is a dish. When peeled it is put into an oven heated to the ordinary temperature for bread, and left there 24 hours. When taken out and cold, the fruit is pressed flat between the hands; and after being plunged in its own juice, which has been set apart for that purpose, it is packed in boxes and exported.

THE FARMER.

Baltimore, Friday, May 14, 1830.

☞ We beg correspondents to consider their communications as favours conferred on us and our readers, instead of asking the publication of them as favours to themselves. Every practical essay, no matter how common the subject may be, or how often discussed, is valuable. We recollect a short time ago some of our southern friends sent us an article on raising sweet potatoes from sprouts, or plants; it was a good article, and we published it. Happening soon after to be walking in a vegetable garden near the city, we observed the gardener, (a black man from the Eastern Shore,) busily engaged in transplanting sweet potato sprouts—he stated in answer to some questions, that he *always did so on the Eastern Shore.* Now the article we thought so much of contained nothing new to him, or perhaps to people on the Eastern Shore, but it was a good article notwithstanding, for it was new to many others. This anecdote is applicable to almost every subject of agricultural attention.

New modes of cultivation, and improvements of all kinds, originate with individuals, and are communicated to neighborhoods by personal observation; but, unless *published* they make very slow progress over a country. Hence it is not uncommon for a traveller to see modes practised in some particular district totally different, and often far superior to general practice. Now, although the publication of their practice, would be nothing new to the neighborhood, it would be both novel and valuable to all the world besides; and hence the great utility of an agricultural press, through the medium of which, farmers of distant parts can exchange ideas, and ascertain the modes of cultivation of every part of the country. We therefore again invite agriculturists to *favour us* with their ideas—give us plain practical essays, on any agricultural subject, gardening, &c. freely. There are a few of our *old correspondents,* to whom we would particularly address these hints.

☞ We are still without foreign intelligence.

THE SEASON.

We have hardly known the fields to have a more beautiful appearance than at present. The fields of grain are said never to have looked better at this season of the year. There having been no frost to do damage, there is a prospect of an abundance of fruit. Vegetation is uncommonly forward. We saw on the island opposite this place last week an acre of peas in full bloom, and red clover in blossom.

[*Harrisburg, Pa. Intelligencer.*

The Salem (Mass.) Observer of the 8th inst. says—"the orchards and fields in this vicinity have put on their richest livery. We have not at hand, any means of ascertaining with accuracy, a comparison of the time of blossoming with that of last season, but we should think it is about a fortnight earlier."

EARLY CUCUMBERS.

The Middletown (Conn.) Sentinel mentions, that the proprietors of the *Palestine Garden and Prospect House*, in that city, exhibited to the Editor, several fine cucumbers grown in his garden this spring—the largest of which was about 6 inches in length.

A few strawberries have been sold in Boston, raised by H. S. Waldo. They were of fine flavour and measured two inches in circumference.

COMMUNICATION.

A few days ago, a citizen of Philadelphia, by profession a silversmith, or watchmaker, while at work, unfortunately got a small piece of steel in one of his eyes, which was very painful. Several eminent physicians were called to get it out, but they were all fearful to undertake it, and they apprehended he would lose his eye. A neighbour of his, and one of the same profession, went to see him, and applied a magnet to his eye, which took out the small piece of steel, which entirely relieved him. This may be of use to those who may meet with the same misfortune.

A Traveller.

Prices Current in Boston, May 7.

Apples, best, bbl. 2.25 a 3.00. *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.00 a —— cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.25 a —— Genesee, 5.25 a 5.50; Rye, best, 3.00 a 3.37. *Grain*, Corn, bu. .50 a 55; Rye, .65 a .70; Barley .62; Oats .35 a .40. *Hogs'-Lard*, 1st sort, new, lb. .7 a .8. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.50 a ——; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 9; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .45 a .60; do. do unwashed, .25 a .40; do. three-fourths, washed, .37 a .45, do. half blood, .35 a .38; do. quarter, washed, .30 a .33; Native, washed .30 a .33; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, May 8.

Bees-wax, yellow .20 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .11; Alabama, .9½ a .11¼. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a —— Canal 5. a 5.25; Balt. Howard st. 5.12½ a —— Richmond city mills, —— country, 4.87½ a 5—Alexand'a, 4.75 a 5. Fredericksburg 4.75 a —— Petersburg, 4.75 a 4.87½; Rye Flour, —— a 3.00; Indian Meal, per bbl. 2.50 a —— per hd 12.50 a —— *Grain*, Wheat, North, 1.03 a 1.05; Vir. 84 a 90; Rye, North, 60 a —— Corn, Yel. Nor. .48 a 49; Barley, — a — Oats, South and North, .28 a .36; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 9.75; prime 5.50 a 6.25; cargo 4.50 a —— Butter, N. York, — a — shipping, .6 a 10; Lard, .6½ a .6¾; Pork, mess 12.50 a 12.75; prime 9.00 a 9.37½.

Prices Current in Philadelphia, May 10.

Bees-wax, yellow .20 a .22; *Beans*, bushel $.85 a 1.00; *Beef*, mess 10.00 a —— prime 8 a 9, cargo 7; *Butter*, No. 1, 6 a 7, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11½, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 5.00, fine, 4.50 a —— Rye 3.12½ a —— Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask 9.50; bu. 1.22 a ——; *Grain*, Wheat .98 a 1.00 Rye 48 a 52, Corn l. c. white, .35 a .36½, l. c. yellow, 39 a .40, u. c. round, 44 a 45; Oats .25 a .28, Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia 9 a 9½, Western .9 a .9½; *Hemp*, 210 a 220; *Lard*, .5 a .7; *Oil*, linseed, 71 a 72; *Pork*, mess, 12.50 a ——, prime 11 a 11.50; cargo 10. *Rice*, 2.25 a 2.50; *Tobacco*, Kentucky .4 a .7, Vir. .4 a .5½. *Wool*, common washed lb. .22 a .26, half blood .28 a 30, three quarters blood .32 a .—, full blood 33 a .38; unwashed, generally 6 cents less, according to quality. &c. &c.

THE IMPROVED REFRIGERATOR.

For preserving perfectly cool, fresh and clean, butter, milk, meat, eggs, fruit, liquors, &c., during the summer; and also from freezing in winter, any articles that may be deposited in it. Made only by

DANIEL RICHARDSON,
Old Exchange, Commerce street,
near the corner of Water street.

Also, his new invented BUTTER BOX, constructed on the same principles of the Refrigerator; in which butter may be brought in the hottest season to market, by land or water, from any distance, perfectly hard and in the best condition.

Captains of steam-boats and vessels going to sea, will find the Refrigerator the most useful thing on board their vessels, as fresh meat will not taint in them, but will keep perfectly pure as long as desirable. They will be sold at the very lowest prices, as I have a complete assortment on hand, of all sizes and made in the best manner.

Baltimore, August 1st, 1827.

I purchased of Mr. Daniel Richardson, in May last, one of his Improved Refrigerators, and find it so useful, that I could not want one for double the cost; having had a trial, I do not see how we could dispense with it. GEORGE BELTZHOOVER,

Indian Queen Hotel and Baltimore House.

City Hotel, Baltimore, August 4th, 1827.

I have had in use, for two years, a Refrigerator, made by Mr. Daniel Richardson, which is the most useful article for the preservation of meats, milk and butter during the hot season, that I have ever seen. It has fully answered my expectations, and I am so much pleased with it that I have ordered one on a very large scale. I would recommend it to all who are desirous of such a convenience. DAVID BARNUM.

Baltimore, August 3d, 1827.

I purchased in May, 1823, of Mr. Daniel Richardson, one of his Improved Refrigerators, and having used it constantly for four years, I can truly say that I never had any thing in my house that I was more pleased with. I have saved more than double the price of it in articles of household consumption in one summer. I cannot say too much in praise of the article, and would not dispense with it for ten times the cost of it.

JOHN BOYD.

AGRICULTURAL IMPLEMENTS.

The subscriber has on hand a supply of Grass and Cradle Scythes, Scythe Sneeds, Scythe Rifles, and Stones, and Grain Cradles; Robbins' celebrated Corn Planter, which is very useful for planting various kinds of seeds, such as Mangel Wurzel, Peas, &c. &c. He has also on hand Wheat Fans, which he can warrant with confidence, and likewise his Patent Cylindrical Straw Cutters, which has never been equalled in any country; with a general assortment of Farming Implements and Garden Seeds, all of which are good of their kind, and such as he hopes will merit the continuance of that liberal patronage which he has heretofore received. JONATHAN S. EASTMAN,

No. 36 West Pratt street.

May 12, 1830. G. P. C.

ALMANAC.

1830. May.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 15	4	53	7	7	14	14	0	40
Sunday,...... 16	4	52	7	8	14	16	1	16
Monday,..... 17	4	51	7	9	14	18	2	00
Tuesday,.... 18	4	50	7	10	14	20	2	35
Wednesday, 19	4	49	7	11	14	22	3	16
Thursday,... 20	4	48	7	12	14	24	4	00
Friday,....... 21	4	47	7	13	14	26	4	40

Moon—New Moon, 22d, 2h. 5m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—The prices of flour and grain have declined a trifle, and there is little doing. The wagon price of Howard street flour is unsettled; generally it is $4.62½, but expected to decline to $4.50. There is little beef in market; very fine would probably command a trifle above our highest rate.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 22.00.—Fine yellow, 25.00 a 30.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 245 hhds Maryland and 6 hhds Ohio, total 251 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard st. 4.68¾ *a* 4.75—city mills, 4.62½ *a* —— Susquehanna, —— Corn Meal, bbl. 2.25—Grain, best red wheat, .90 *a* .95; best white do. .95 *a* 1.00. ordinary to good, 80 *a* 85—Corn, white, .34 *a* —— yellow .36 *a* .37—Rye, .55 *a* ———Oats, .26 *a* —— Beans, .90 *a* 1.00—Peas, .65—Clover seed, 3.75 *a* 4. —Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, — *a* ——Flaxseed, 1.08 *a* ———Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21 *a* ——; in bbls. 23 *a* 23½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20--crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. 6 *a* 6.25; do. trimmed, 6.50—North Carolina, No. 1, 6.50—Herrings, Susquehanna No. 1. bbl. 4.50 *a* —— Mackerel, No. 1, 6.25 *a* —— No. 2, 6.00—No. 3, 3.00 *a* 3.75——Bacon, hams, Balt. cured, .9 *a* .10—Feathers, .31 *a* 32—Plaster Paris, cargo price per ton, 3.75 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 5.25 *a* 5.50—Pine Wood, by the vessel load, 2.00 *a* 2.50—Oak Wood, 2.87½—Hickory, 3.75.

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AGRICULTURE.

AN ADDRESS

Delivered before the Hampshire, Franklin, and Hampden Agricultural Society, at Northampton, Oct. 29, 1829. By Festus Foster.

The Lord, who formed the earth, formed it to be inhabited. What were its original soil and climate, and what its animal and vegetable productions, it may now be difficult to determine. Thus much we know, that the whole and every part were such, that infinite wisdom and benevolence surveyed them with delight, and pronounced them good.

In such a world as this were our primeval ancestors placed, and the employment assigned them was to till the ground and eat of its fruits. Had our race continued innocent and undefiled, agriculture must have been a pleasant recreation, rather than a toil. We might then have seen those products of the field, which now cost us much labor, growing spontaneously or with little care; our trees not infested with the canker work and the caterpillar, our wheat not choked by tares, nor our pastures and meadows over-run with briers and thistles. So harmless might have been the beasts and reptiles, that the figurative language of prophecy would have been literally true, and we might have seen "the wolf dwell with the lamb, and the leopard lie down with the kid, the calf and the young lion and the fatling together." We might have seen our children, not only safely sporting with the lion, the leopard, and the wolf, but "playing on the hole of the asp, and putting their hands on the den of the cockatrice, and there be nothing to hort or destroy in all the earth."

But the earth has suffered a sad reverse. The loss of innocence was followed by the loss of paradise. The ground has been cursed for man's sake, and doomed to bring forth thorns and thistles, and man himself to earn his bread by the sweat of his brow. From that sad hour to the present time, agriculture has required our utmost labor and ingenuity. Useless and noxious weeds spring up spontaneously, and flourish in all their pomp and luxuriance, while every plant adapted to our sustenance or pleasure, must be nurtured by our care. In our own fertile and happy land, how few plants are the native products of the soil? With the exception of your Indian corn, your whole farms are stocked with vegetables of other climes. Before these could take root, immense forests were to be removed; and before they could flourish, they must be enclosed from grazing beasts, or the beasts themselves exterminated. All this effected, your constant labor and care are requisite to defend the tender plant from weeds, insects, and reptiles, and to mellow the earth that it may expand its roots and grow to maturity.

In rearing animals, your task is not less difficult. Those which are fitted to be useful, either for food, labor, or clothing, and which you would, therefore, domesticate, are graminivorous, and must be restrained from access to such vegetables as you wish to preserve. They are mostly of foreign origin, and unable to subsist in this climate without your care. You must therefore provide for them food and shelter, during the inclement winter, and protect them from beasts of prey. The hawk watches for your poultry by day and the fox by night. The wolf in your sheep-cot, gives ocular demonstration that Sampson was not more valiant among the Philistines, nor ever wielded a jaw-bone with better success.

There is another event recorded in sacred history, which had an effect upon the whole surface of the earth, and probably a deleterious effect upon agriculture. I refer to the universal deluge. When the inspired historian tells us of "the waters under the earth," and that in the days of Noah "these fountains of the great deep were broken up," and the billows rolled over the land; and at the same time "the windows of heaven opened," and the rain let down in torrents until the whole earth was inundated, there must have been such a convulsion of nature as to alter the surface of the earth, piling up mountains here, and making excavations there, if indeed the earth itself was not racked to its centre, and torn to fragments. Some philosophers have supposed that such was the fact; and that the earth was thrown from its original position in the heavens so as to incline its axis to the plane of its orbit. On this theory they account for the longevity of the antediluvians, to whom there could have been no variation of seasons, and maintain that "seed time and harvest, cold and heat, summer and winter," commenced after the deluge, when the promise was made, that they should never cease. Some change in the soil or climate, not less than that contended for in the above theory, must have taken place, as an adequate cause for at once reducing human life to one tenth part of its original length. A change, so unpropitious to animal life, could hardly be otherwise than detrimental to the growth of vegetables. Besides; after the labor and experience of more than sixteen centuries, all was lost. Not a record, nor a vestige left; but Noah and his sons had to commence their labors and experiments anew, in a new world. Add to these considerations, the shortness of human life, so that but little time is left us to be active and useful, after we have arrived to years of discretion and gained a competent knowledge of agriculture, before we feel our constitution begin to decline, and with a palsied hand and tottering step quit the field of labor, and by our firesides wait our coming dissolution.

There is another cause which has been most detrimental to the interests of agricultore; the baneful effects of which have been felt in every age. A great part of the bone and sinew of every nation has been drawn from the field to the camp. War, needless and unjust war, has left one country untilled, to spread ruin and desolation over another. Had the lives and treasures, wasted in war, been employed in cultivating the soil, and opening roads and canals from one section of country to another, who has imagination to conceive what must have been the present state of the world? Who will venture to estimate the increased wealth and population of the different nations—the facilities of communication—the ease and plenty which would every where abound—and the advances which would have been made in all the arts, sciences, comforts, and elegancies of life?

Agriculture has been left to struggle with the ignorance, as well as to suffer from the wickedness of man. It had to crawl into existence under every disadvantage. The qualities of plants and the means of propagating or destroying them, as they were found useful or noxious, were lessons to be learned without an instructer. The like ignorance prevailed respecting animals. What species were proper to domesticate, how they could be supported, and to what uses they could be applied, were inquiries which could be solved only by experiment. When we turn to the implements of husbandry, similar, if not greater difficulties present themselves. Vast forests are to be annihilated, the firm soil loosened that your seeds may send out their slender roots, and heavy burdens removed from the field to places of safety. What implements are necessary to effect all this, and how and where are they to be procured? Who knows the properties of iron? In what mountain is the ore concealed? Who can dig it up, separate the metal from the dross, and without tools or patterns, fashion tools for the farmer's use? Ages on ages must have rolled away, before men could have acquired such a knowledge and such implements of husbandry as now seem necessary to a bare subsistence. Their food and raiment must have been scanty and of the coarsest kind; their implements few and of the rudest form. What little science there was in the world, was applied to other purposes than the cultivation of the earth. The attention of princes was directed to objects of pleasure and aggrandizement, to their courtiers and their concubines—their wars and their conquests, while the poor unlettered peasant was left to grope his way in the dark, unaided, unpitied. Artisans, if such there were, applied their skill to the manufacture of swords instead of plough-shares—of spears instead of pruning-hooks. The cultivation of the earth was left to the lowest and most debased of the people, who were alike destitute of skill, energy, and a laudable ambition. It was an employment in which none could expect to rise to distinction, and in which the ambitious and enterprising never engaged. It was accounted a mean and degraded occupation, and treated with neglect and contempt. Up to the present hour, Europe is divided into two great classes, denominated the gentlemen and the peasantry, or the laboring class, and those who are above labor. And so deeply rooted was this distinction, that our ancestors brought it with them to this country. Perhaps it may be within the recollection of some who now hear me, that a distinction was once made in our universities between the sons of our yeomanry, and the sons of our American gentlemen! O, "tell it not in Gath, publish it not in the streets of Askelon."

I might mention other causes with which agriculture has had to contend; such as the unequal distribution of land, the consequent custom of renting it to tenants, and the tithes, tribute, and taxes which have oppressed and disheartened the cultivator in every age. In most of the governments of Europe, the title to the soil is founded on conquest. The subjugated country was parcelled out among the military chieftains of an invading army, and its inhabitants reduced to a state of vassalage. The policy of these great landholders, who were to be the future lords, barons, and noblemen of the realm, has been to retain their estates in their own families, and rent them to the laboring poor. Hence the distinction of landlord and tenant has become universal. Where the landed property is in the hands of a few, and the great mass of the people poor and dependent, the rich landlord will impose on his tenants rents and exactions to the full extent of their strength. The humble laborer has nothing, and can acquire nothing. He has neither skill, nor leisure, nor means, nor motives, to make any experiments or improvements. A bare subsistence is all he can expect, and this is the goal of his highest ambition. The lords of the soil, instead of planning, directing, and superintending improvements on their estates, are off on excursions of gallantry, or at court basking in the sunshine of royalty, or at the banquet revelling in luxury. The extravagance and dissipation of the landlord, and the poverty and depression of the tenants, have caused "the land to mourn."

I have glanced at the past, that by comparing the present state of agriculture with its low and degraded state in former times, you may perceive how much has already been done under every disadvantage—that a beginning has been made—that many impediments have been removed—that stronger inducements are furnished—and that, like St. Paul, you have only to "thank God and take courage," to perfect what is wanting.

The general principles. necessary to be observed by the agriculturist. are few and simple. It is an established law of nature that death sustains life. Some species of animals are supported by the death of others, and some by the destruction of vegetables. Animals, which have been found most useful to man, are wholly of the latter kind. The first attention of the farmer, therefore, must be directed to the production of such vegetables as contribute to the support of man and such animals as he has selected for his use. In the production of vegetables, the same law of nature prevails—death is necessary to life. You must, therefore, seek that dark, loamy soil, which has been formed by the decay of vegetables for a series of years, and as you exhaust it by repeated crops, add either animal or vegetable decomposition, and like the fabled Phenix, one crop will arise from the ashes of another. Excepting a few tender and delicate plants, manures are most efficacious when applied in a state of fermentation. They communicate a slight degree of warmth and action to the adjacent soil, salutary and even necessary to vegetation. Any animal or vegetable substances, compacted in a mass and imbibing a moderate degree of moisture, will soon pass into a state of fermentation, by which they are decomposed, and fitted to produce another crop. Hence every farmer may manufacture compost to almost any extent. The value of manure is different on different soils. It is productive on all, and on some indispensable. Land, once brought into a state of high cultivation, by returning the proceeds of its crops, will not degenerate. Sterile lands, and such as have been exhausted or neglected, may be made productive in a few years by compost and the plough.

Where different and opposite soils lie contiguous, much benefit may be derived by admixture. A sandy or gravelly soil may be greatly improved by a covering of loam, mud, or clay. On the contrary, cold, wet, muddy land will be greatly meliorated by a coat of sand or gravel. A soil warm and dry, especially if sloping, may be made highly productive by irrigation. If accompanied by an occasional top dressing of barn manure, the farmer will be well repaid. In a mountainous region, like some parts of the territory within the limits of your society, where precipitous streams abound, and whole farms lie on a declivity, I am persuaded great advantages might be derived from this use of water. A few days labor would add some tons of fine hay to your annual income. To the agriculturist this must be considered a staple article. It is the support of your animals, and the means of enriching your arable lands, and gathering from thence a golden harvest.

Upon the culture of plants, I have time to say but a word, and that is, treat them not with neglect. They require your friendly visits, and the repeated application of the hoe. The garden will demand your daily attention. This may be a pleasant resort, when you have borne the heat and burden of the day, and the evening tide invites to meditation. There you may breathe the fragrant air, succor the young plants emerging from the earth, and watch their progress through all their changing forms.

The cultivation of trees is a subject to which, I think, I may with great propriety invite your attention. Not only would I recommend to every farmer, an orchard of choice fruit, well fenced, and well pruned. but a thrifty wood lot, in which no grazing animal should feed, and from which fuel and timber should be cut with care. We ought to live not only for ourselves, but for our children, and for posterity. Situated in a region where much fuel is absolutely necessary to a comfortable existence, where coal mines are not to be found, and where the demand for lumber is increasing with the wealth and population of the country, our forests already thinned or made bare,—there is great reason to apprehend that in the next and succeeding generations, the scarcity of fuel and lumber will diminish your population—that the expenses will absorb a great portion of the income of your fertile and well cultivated farms, and your splendid villages and temples fall to decay. The time seems to have arrived when, instead of enlarging our fields, we must better improve them; instead of making *strip and waste* in our woodlands, we must cut sparingly; instead of feeding or cutting down the underwood and shoots, we must carefully preserve them. Greater economy must be adopted in cooking our food and warming our houses. The all-devouring chimneys of our ancestors must give place to the stove and the furnace. Our houses must be made a better defence against the cold, and their materials must be taken from the earth rather than the forest.

There is one species of trees entitled to your particular regard. It is the sugar maple. This flourishes on almost any soil, yields to none in cleanliness and beauty, is excellent for fuel, and furnishes sugar little inferior to that of the cane. One hundred of these extended on the margin of your fields, or set in the form of an orchard, would afford an ample supply of sugar and molasses for half a century or more, and when they began to decay, reward you with fifty or an hundred cords of the best fire-wood. The expenses of transplanting them will be but trifling, their injury to the land, if any, inconsiderable, and a few years will give to them great beauty and value.

The value of the locusts and of the mulberry deserve particular notice, but they are believed to be duly appreciated by your society.

In the management of your various animals, having selected the best bloods, you have only to provide for them warm, dry, and commodious shelters, and deal out to them sweet and wholesome fodder, and pure, clean water. Neatness and cleanliness in this department will contribute much to the health, growth, and corpulency of your stock. A slattern in the house is not more disgusting and unprofitable, than a sloven in the barn. In the treatment of those patient and docile animals which perform your labor, let me crave your mercy. Neither suffer them to moan with hunger or thirst, nor to be loaded or driven beyond their strength. A mild and generous usage will secure their attachment, excite their courage and resolution, and dispose them to volunteer their most vigorous efforts in your service. Your interest, as well as the dictates of humanity, require that you abstain from all cruelty and abuse, and that your dominion over them be tempered with lenity and kindness.

To carry into effect the objects of your association, and give to your occupation all the improvements of which it is susceptible, will require the unremitted energies of your mind, as well as much vigorous bodily effort. Agriculture, like all arts and sciences, is progressive, and must never be suffered to rest, or retrograde. Your observations must be made with accuracy, and your researches pursued with ardor. Placed in a country containing a great variety of soil, in a climate mild and healthful, under a government which can impose no burdens on you without your consent, owners of the land you occupy, furnished with the most approved implements, and having for your guide the experience of former ages, and the means of making new experiments under the most favorable circumstances, it would be strange, "passing strange," if you made no advances. I have said, that heretofore, the sciences held no fellowship with agriculture. A better day has began to dawn upon that long neglected occupation. Men of genius and learning have devoted their talents to lighten the burdens of the laborer, and give success to his efforts. As the powers of nature begin to be developed, and its laws are better understood, difficulties diminish and experiments succeed. The sciences have already done much to aid your cause, and may be expected to do still more. A new era has commenced, in no longer confining science to the cell of the monk, and the chamber of the philosopher, but in communicating it to the world at large, and applying it to useful and practical purposes. The discoveries of the geologist, and the experiments of the chemist are spread before you, through the agency of the press. Much mutual benefit may also be expected from your society and similar associations. They emphatically mark the spirit of the age, as distinct from that of any former period. Other nations have had their festivals and their fairs. The Olympic games of Greece, and the gladiatorial exhibitions of Rome characterize the age and ruling passion of each of those great empires, which in succession gave law to the world. But when, or where has public attention been excited and directed to the interest of agriculture and the mechanic arts? When have men of wealth, and science, and influence, taken such a deep interest in the welfare of the laboring part of the community? When was information upon these subjects so widely diffused and so eagerly sought? These signs of the times indicate that a better state of things is to be expected—that causes are in operation which, if continued, will effect a mighty revolution. The united efforts of the great mass of intelligence cannot be fruitless. By repeated experiments and careful observations, from year to year, something will be gained. Whatever discoveries or improvements are made by one, will become the property of all, and never be lost.

Agriculture and manufactures are not insulated interests. They are intimately connected with other arts and occupations, with the sciences, and the laws and policy of our own country and of foreign nations. The prosperity of the agriculturist depends not merely upon the quantity and quality of his produce, but upon the readiness, certainty, facility, and advantage with which he can vend the surplus, or exchange it for such articles as he may need. The same doctrine is true in its application to the manufacturer. It is in vain that he produces the best wares, unless they can find a market; and the easier and cheaper they can be conveyed, the greater will be his profit. Whatever, therefore, tends to furnish a sure and steady market, or to diminish the expenses and risk of transportation, or to reduce the price of articles to be received in exchange, is to the farmer and manufacturer a direct and positive benefit. In this view the construction of rail-roads and canals through an extensive inland country, and improving the navigation of rivers, opening a free trade with such nations as will purchase our produce and manufactures, or in exchange, supply us with such articles as we may want, prohibiting or imposing duties on such importations as come in direct competition with the produce of our farms and the wares of our work-shops,—are subjects, in which the interest of the farmer and the mechanic are deeply involved. A regard to your interest, therefore, requires that your views be extended beyond the cultivation of the soil and the increase of your flocks. Your voice must be heard, and your influence felt in our state and national legislatures. The opinion of sound, intelligent, and practical farmers, is entitled to great consideration; and I am happy to say, that the time has come when gentlemen of every profession are disposed to treat it with respect. By continuing to merit the esteem of your fellow-citizens, you will not fail to receive it; and so far as legislative aid can advance your interests, you may expect the co-operation of a wise and patriotic legislature.

In times like the present, of general depression in every branch of industry, you must expect to participate with your fellow-citizens. Economy, at all times commendable, now becomes an imperious duty. If the products of your labor can find no market abroad, let them, at least, supply your wants at home. To effect this, I place great reliance on the industry and ingenuity of your virtuous wives and daughters. They will curtail your shop bills by furnishing many articles of apparel of their own manufacture Like the good wife described by Solomon. they "will seek wool and flax, and work willingly with their hands. They will lay their hands to the spindle, and their right hands hold of the distaff; their candle goeth not out by night." Such merchandize is better than that brought from afar—such industry is above rubies.

You will not deem me to have surpassed the province assigned me, when I recommend to you the exercise of that influence and authority, which are vested in an employer over those in his service, in suppressing all lewdness, profanity, intemperance, lying, gaming, pilfering, and whatever is opposed to good morals, and a decent and orderly behaviour. Your interest, your self-respect, and your duty to your domestics and to your country, demand this at your hands. When a large portion of our population shall become as debased and degraded as the great mass of the people in the eastern hemisphere, our elections will be a farce, and our political edifice will fall and bury us in its ruins. He, therefore, who attempts to reclaim some who begin to go astray, to prevent the fall of others, and to inspire all with a due sense of the value of character, and to elevate them to a decent standing in society, performs the best of charities to the individuals, and is a public benefactor.

While we regard the moral deportment and welfare of others, may we not neglect our own. While we till the ground from which we were taken, and to which we must return, let our treasures be deposited in that "better country," where flows "the river of life," where stands "the tree of life," and where "the light of the sun and of the moon" will be extinguished, in the brighter splendor of God's eternal day.

(From Loudon's Encyclopædia of Agriculture.)

OF OIL PLANTS.

In Britain there are *few plants grown solely for the production of oil;* though oil is expressed from the seeds of several plants, as the flax, hemp, &c. grown for other purposes. Our chief oil plant is the rape.

Rape is the *Brassica napus,* L; *Navette,* Fr.; *Rubsamen,* Ger.; *Naba silvestre,* Span.; and *Rapa silvatica,* Ital. It is a biennial plant of the turnip kind, but with a caulescent or woody fusiform root, scarcely fit to be eaten. Von Thaer considers the French and Flemish colza (*Kohlsaat,* Ger.) a different plant from our rape; colza is more of the cabbage kind, and distinguished by its cylindrical root, cut leaves, and greater hardiness. Decandolle seems to be of the same opinion.

According to these writers, *Brassica campestris oleifera* is the colsat or colza, or rape of the continent, the most valuable plant to cultivate for oil; its produce being to that of the Brassica napus, or British colsat or rape, as 955 to 700. It is distinguished from the B. napus, by the hispidity of its leaves. It would be desirable for agriculture, Decandolle observes, that in all countries, cultivators would examine whether the plant they rear is the B. campestris oleifera or the B. napus oleifera, which can easily be ascertained by observing whether the young plant is rough or smooth; if hispid, it is the B. campestris; if glabrous, the B. napus. Experiments made by Gaujuc, shew the produce of the first, compared to that of the second, to be as 955 to 700.

For its leaves as *food for sheep, and its seeds for the oil manufacturer, rape,* or *coleseed,* has been cultivated from time immemorial. It is considered a native, flowers in May, and ripens its seeds in July. It may be grown by sowing broad-cast, or in rows, like the common turnip, or transplanted like the Swedish turnip. The culture of rape for seed has been much objected to by some, on account of the great degree of exhaustion of the land that it is supposed to produce; but where it is grown on a suitable soil and preparation with proper attention in the after-culture, and the straw and offal, instead of being burnt, as is the common practice, converted to the purposes of feeding and littering cattle, it may, in many instances, be the most proper and advantageous crop that can be employed by the farmer.

The soils best suited for rape are the deep, rich, dry, and kindly sorts; but, with plenty of manure and deep ploughing, it may be grown in others. Young says, that upon fen and peat soils and bogs, and black peaty low grounds, it thrives greatly, and especially on pared and burnt land, which is the best preparation for it; but it may be grown with perfect success on the fenny, marshy, and other coarse waste lands, that have been long under grass, after being broken up and reduced into a proper state of preparation. As a first crop on such descriptions of land, it is often the best that can be employed. The author of *The New Farmer's Calendar* thinks, that this plant is not perhaps worth attention on any but rich and deep soils; for instance, those luxuriant slips that are found by the sea-side fens, or newly broken grounds, where vast crops of it may be raised.

The preparation of old grass lands, if not pared and burned, need be nothing more than a deep ploughing and sufficient harrowing to bring the surface to a fine mould; and this operation should not be commenced in winter as some recommend, on account of the grub and wire-worm having time to rise to the surface; but in February or March, immediately before sowing, or in July or after the hay crop is removed, if the sowing is deferred till that season. When sown on old tillage lands, the method of preparation is pretty much the same as that which is usually given for the common turnip; the land being ploughed over four or five times, according to the condition it may be in, a fine state of pulverization or tilth being requisite for the perfect growth of the crop. In this view, the first ploughing is mostly given in the autumn, in order that the soil may be exposed to the influence of the atmosphere till the early part of the spring, when it should be again turned over twice, at proper intervals of time; and towards the beginning and middle of June one or two additional ploughings should be performed upon it in order that it may be in a fine mellow condition for the reception of the seed.

The place in a rotation of crops, which rape occupies, is commonly between two of the culmiferous kind. On rich soils it may be succeeded to the greatest advantage by wheat, as it is found to be an excellent preparation for that sort of grain; and by its being taken off early, there is sufficient time allowed for getting the land in order for sowing wheat.

The season of sowing rape is the same as that for the common turnip, and the manner, whether in broad-cast or rows, the same. The row method on the flat surface seems the best for newly broken up lands, and the rows on ridglets, with or without manure, the best for lands that have been under the plough. Where the object is the keep of sheep in autumn or winter by eating it down, the broad-cast method and thick sowing is evidently the best, and is that generally resorted to in Lincolnshire and the fenny districts. The quantity of seed when sown thick may be a peck an acre, but when drilled or sown thin, two or three pounds will suffice. The seed should be fresh, black, and plump. Vacancies may always be filled up by transplanting.

The season of transplanting begins as soon after the corn harvest as possible, being generally performed on the stubble of some description of corn crop. One deep ploughing, and a sufficient degree of harrowing to pulverize the surface, is given, and the plants may be dibbled in in rows a foot apart, and six inches in the row or narrower, according to the lateness of the season of planting, and the quality of the soil; for it must be considered that plants transplanted so late as September or October will be far from being so strong the succeeding spring, as those sown in June and left where they are to run. The seed-bed from which the plants are obtained should have been sown in the June or July preceding the transplanting season, and may be merely a ridge or two in the same or in an adjoining field. We have already noticed the Flemish mode of transplanting by laying the plants in the furrow in the course of ploughing, but as the plants cannot be properly firmed at the lower part of the root, we cannot recommend it.

The after-culture of rape is the same as that of the turnip, and consists in hoeing and thinning. The plants on the poorer soils may be left at six or eight inches apart or narrower, but on the rich they may be thinned to twelve or fifteen inches with advantage to the seed. Few are likely to grow the plant on ridglets with manure; but if this were done, the same distance as for turnips will ensure a better crop of seed than if the plants were closer together. In close crops the seed is only found on the summits of the plants; in wide ones on rich soils, it also covers their sides. When rape seed is grown purposely for sheep keep, no hoeing, thinning, or weeding, are necessary. Rape grown for seed will not be much injured by a very slight cropping by sheep early in the autumn, but considerably so by eating down in winter, or the succeeding spring. The seed begins to ripen in the last week of June, and must then be protected as much as possible from birds.

In harvesting rape great care is requisite not to lose the seed by shaking, chaffing, or by exposing it to high winds or rains.

It is reaped with the hook, and the principal point is to make good use of fine weather; for as it must be threshed as fast as reaped, or at least without being housed or stacked like other crops, it requires a greater number of hands in proportion to the land, than any other part of husbandry. The reaping is very delicate work, for if the men are not careful, they will shed much of the seed. Moving it to the threshing-floor is another work that requires attention; one way is to make little wagons on four wheels with poles, and cloths strained over them; the diameter of the wheels about two feet, the cloth body five feet wide, six long, and two deep, and drawn by one horse, the whole expense not more than 30*s.* or 40*s.* In large farms, several of these may be seen at work at a time in one field. The rape is lifted from the ground gently, and dropt at once into these machines without any loss; they carry it to the threshers, who keep hard at work, being supplied from the wagons as fast as they come, by one set of men, and their straw moved off the floor by another set; and many hands of all sorts being employed, a great breadth of land is finished in a day. Some use sledges prepared in the same way. All is liable to be stopped by rain, and the crop much damaged; it is, therefore, of very great consequence to employ as many people as possible, men, women, and boys, to make the greatest use of fine weather. The seed is likewise sometimes cleaned in the field, and put into stacks for the market. But when large quantities of seed are brought quickly together, as they are liable to heat and become mouldy, it may be a better method to spread them out thinly over a barn, granary, or other floor, and turn them as often as may be necessary.

The produce where the plant succeeds well, and the season is favorable for securing the seed, is forty or fifty bushels or more on the acre. Marshal thinks, indeed, that on the whole it may be considered as one of the most profitable crops in husbandry. There have been, says he, instances, on cold unproductive old pasture-lands, in which the produce of the rape crop has been equal to the purchase value of the land. The seed is sold by the last of ten quarters, for the purpose of having oil expressed from it, by mills constructed for that use. The price varies considerably, but has lately seldom been much below 30*l.* the last.

The use of the seed for crushing for oil is well known; it is also employed as food for tame birds, and sometimes it is sown by gardeners, in the same way as mustard and cress, for early salading.

The rape cake and rape-dust, the former adhering masses of seed husks, after the oil has been expressed, and the latter loose dry husks, are used as a top dressing for crops of different kinds. They are reduced into powder by a malt mill, or other grinding machine, and sometimes sown broad-cast over young clovers, wheats, &c. and at other times drilled along with turnip seed. Four cwt. of powder sown with turnip seed in drills, will go over one acre, but three times the quantity is required for an acre sown broad-cast. Experience has proved, that the success of this manure depends in a great measure on the following season. If rain happens to fall soon after the rape-dust is applied, the crop is generally abundant, but if no rain fall for a considerable period the effects of this manure are little discernible, either on the immediate crop, or on those which succeed it. There are turnip drills contrived so as to deposit the manure along with the seed.

The use of the haulm to cattle in winter is very considerable. The *stover* (pods and points broken off in threshing) is as acceptable as hay, and the tops are eaten with an avidity nearly equal to cut straw, at least better than wheat straw. When well got, the smaller stalks will be eaten up clean. The offal makes excellent litter for the farm-yard, and is useful for the bottoms of mows, stacks, &c. The haulm of this plant is frequently burned; and, in some places, the ashes, which are equal to potash, are sold; by which practice, if no manure be substituted, the soil must be greatly deteriorated. It is a custom in Lincolnshire, sometimes to lay lands down with cole, under which the grass seeds are found to grow well. But this sort of crop, as has been already observed, is most suited to fresh broken-up or burned lands, or as a successor to early peas, or such other green crops as are mowed for soiling cattle.

The use of the leaves as a green food for sheep, is scarcely surpassed by any other vegetable, in so far as respects its nutritious properties, and that of being agreeable to the taste of the animals; but in quantity of produce, it is inferior to both turnips and cabbages. In this view the crops are fed off occasionally from the beginning of November to the middle of April: being found of great value, in the first period, in fattening dry ewes, and all sorts of old sheep; and, in the latter, for supporting ewes and lambs. The sheep are folded upon them in the same manner as practised for turnips, in which way they are found to pay from 50s. to 60s. the acre; that quantity being sufficient for the support of ten sheep, for ten or twelve weeks, or longer, according to circumstances. Rape has been found, by experience, to be superior to turnips in fattening sheep, and, in some cases, even to be apt to destroy them by its fattening quality. In *The Corrected Report of Lincolnshire*, it is likewise observed, that that which is grown on fresh land has the stem as brittle as glass, and is superior to every other kind of food in fattening sheep; while in that produced on old tillage land, the stem is tough and wiry, and has comparatively little nourishment in it.

Among *other plants which may be cultivated by the British farmer as oil plants,* may be mentioned all the species of the Brassica family, the Sinapis or mustard family, and the Raphanis or radish family, with many others of the natural order of cruciferæ. The seeds of these plants, when they remain too long on the seedsman's hands for growing, are sold either for crushing for oil, or grinding with mustard seed. This includes a good deal of wild charlock and wild mustard seed, which is separated in the process of cleaning grain by farmers, among whose corn these plants abound, and sold to the seed agents, who dispose of it to the oil or mustard millers. Various other cruciferæ, as the Myagrum sativum, Raphanus chinensis, var. oleiferus, both cultivated in Germany, the Erysimum, Sisymbrium officinale, Turrites, &c. might also be cultivated for both purposes.

The small or field poppy (*Papaver Rhœas; Oilette*, Fr.,) and also the Maw seed (*P. somniferum*, var. *Pavot*, Fr.,) a variety of the garden poppy, are, as we have seen, cultivated on the continent as oil plants. The oil being esteemed in domestic economy next to that of the olive. Other species might be grown for the same purpose, all of them being annual plants require only to be sown on fine rich land in April; thinned out when they come up, to six or eight inches distance, according to the species; kept clear of weeds till they begin to run, and as the capsules ripen to be gathered by hand, and dried in the sun.

The sunflower (*Helianthus annuus; Turnesol*, Fr., and *Girasole*, Ital.) has been cultivated in Germany for its seeds, which are found to yield a good table oil, and its husks are nourishing food for cattle.

THE COTTON CLEANER.

This is a machine invented by Mr. Gilliam, of Greenville, for removing the dirt and trash from seed cotton, and for which he has obtained a patent. The purposes of this invention are thus explained by the patentee.

"The cleaner may be attached to the gearing of a cotton gin, and run at the same time that the gin is at work, as it only requires about a half horse power to clean from 3000 to 6000 lbs. per day.—It separates the dirt and trash from the cotton, and prepares it for the gin; and it has been observed that the gin does not cut the staple of the cotton so much to pieces after passing through as it does without it. Therefore, this machine preserves the staple of the cotton and brushes off the stain that collects on it from remaining in the field under heavy falls of rain—consequently it is restored to its natural state, and in market it will command a higher price. The farmer can have at least one third more picked out per day, with the same number of hands." [*Carolinian.*

(From the New England Farmer.)

THE SEASON.

We avail of that portion of our scientific and intelligent correspondent "Observator's" communication, which appears to us the most essential, and most interesting to our readers in general.

Mean heat of April, 47 1 8.—Till the 19th the season was not more forward than usual, and the prevalence of cold N. E. winds for a long time increased the apprehensions of many, that the season would prove a backward one. The change of the wind on that day to S. W. soon changed the opinions of those who entertained such fears, and gave a new aspect to the face of the earth. Till the close of the month, the progress of vegetation was the most rapid ever known in this region at so early a period. It is very unusual for trees of any kind to be in full blossom in April; and during the last twenty-three years there has occurred no instance, within the knowledge of the writer, of an apple tree blossoming in that month. In 1808, they began to show a few blossoms as early as the 3d of May, and in no year since have they been observed before the 5th of the month; which was the case in 1814, 1825, 1827, and 1828. Last year, the first blossoms noticed were on the 18th of May. This year several trees were observed quite full blown on the last day of April, making at least eighteen days difference in the progress of the two seasons. At this time they are in full bloom, and there is probably the greatest profusion of blossoms ever known here. Pear, peach, and cherry trees have also blossomed unusually full, and there is at present a prospect of a superabundance of all kinds of fruit. Grass looks remarkably well and like the trees is from fifteen to twenty days earlier than usual.

Waltham, May 7, 1830.

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The following table exhibits the periods, at which apple trees have been considered in full blossom for the last twenty-four years.

In 1807	May	26	In 1819	May	31
1808	"	14	1820	"	22
1809	"	24	1821	"	27
1810	"	27	1822	"	15
1811	"	18	1823	"	25
1812	June	6	1824	"	23
1813	May	27	1825	"	15
1814	"	15	1826	"	16
1815	"	27	1827	"	18
1816	"	22	1828	"	18
1817	"	23	1829	"	22
1818	"	28	1830	"	7

On the Price of Mutton and Wool.

The Banner of the Constitution states as one of the reasons why the British can raise wool cheaper than we, that the British people are great mutton eaters as well as beef eaters; while, on the contrary, in this country, a very small proportion, comparatively, of mutton is eaten. By quotations of the prices of the meat market in a great many different parts of the kingdom, it is conclusively shown, that mutton sells in England for about the same as beef, and in some places for more, and that the average price is about eleven cents a pound. It is plain from this, that a sheep, the carcase of which weighs fifty pounds, is worth five dollars and a half, independent of the skin and wool; while in the interior of this country, hundreds of thousands of sheep may be had, carcase, skin, wool and all, for a single dollar. The price of mutton in the markets of the Atlantic cities seldom exceeds six cents; and this difference in the comparative prices between this country and Great Britain is evidently one of the causes of the superior cheapness at which the wool growers of that country can afford wool. The humorous remarks with which the Banner of the Constitution concludes its exposition of this subject, we subjoin.

"In order therefore to compete with the British, in the raising of wool, we must become a nation of mutton eaters, and we are clearly of opinion that those who wish to see wool in this country produced as cheap as it is in England, should set the example of having nothing but sheep served up at political barbecues, at the tables of the woollen spinners and weavers, and at the festivals of the American Institute. They should always keep in mind, that the cod-fishery of New England was, in a great degree, established by the patriotic resolution of our eastern fellow citizens to have a cod-fish dinner once a week. This being a legislative protection to the wool growing interest, with which no one would have a right to find fault, it would stand upon a different footing from a tariff law, which taxes a man against his will: and if in the progress of time, the American people shall be willing to pay more for mutton than for beef, some hopes may be indulged, that the awful butchery of sheep, which we understand is now going on to a great extent, will not be repeated."

Product of the Newport Almshouse Farm, 1829.—30 tons hay; 200 bushels corn; 675 do potatoes; 379 do. onions; 2232 bunches do.; 58 bushels barley; 75 do. oats.

The produce of the farm exceeds that of any other year, and is yearly improving in walls, buildings, &c. About two acres for an orchard have been walled in, in which trees will be set this season. There is at present, 55 acres cultivated; 57½ in meadow.

(From the New England Farmer.)

Brighton Market—*Monday, May* 10.

At market this day, 241 Beef Cattle, including 8 unsold last week, (unsold 21,) 21 working oxen, 19 cows and calves, 62 sheep and 30 swine, including 15 unsold last week.

Prices—Beef Cattle—Extra $5.33 a 5.50; good 5 a 5.25; thinner cattle, about twenty, 4.50 a 5.00.

Working Oxen—Few sales, viz: $44, 45, 42, 70.

Cows and Calves—Ordinary, sales $18, 19, 23, 21.

Sheep—Price not noticed.

Swine—One entire lot of twenty-one, 4½ cts. at retail 5 a 6 cts.

HORTICULTURE.

(From the U. S. Gazette.)

SEA KALE.

The subscriber has the pleasure to announce to the public that he has completely succeeded in cultivating the *Sea Kale*, a new and excellent vegetable, for which the Horticultural society at their late meeting offered as a premium a gold medal.

This valuable plant is now in fine order, and is believed to be in the greatest perfection of any ever produced in this vicinity, or perhaps elsewhere in the United States. He will this day, do himself the pleasure to exhibit the same to ladies and gentlemen who may favor him with a call. This being a new article in the United States, perhaps a short account of it may not be amiss. It is known in England by its common name Sea Kale, or according to the books *Crambe Maritima*, L. *Tetrad Silig*, L. and *Cruciferæ*, J. *Chou Marin*, Fr. *Meerkohl*, Ger. and *Crambio*, Ital.

It is now about eighteen inches in height, and described as a hardy perennial; the whole plant smooth. of a beautiful glaucous hue, and covered with a very fine meal; occasionally, however, it varies like the wall flower-leaved ten week stock, with quite green leaves. The flower has a rich white appearance and smells strong of honey The precise period of its introduction to the garden is unknown. Mr. Miller was the first who wrote upon it professionally in 1731—and Mr. Jones of Chelsea, states that he saw branches of it in the Chichester market in 1753. Dr. Lettsom about the year 1767, cultivated and introduced it into general notice in the neighborhood of London. But the late Mr. Curtis has done more to recommend and diffuse the knowledge of it than any of his predecessors. This vegetable is known in Covent Garden market, but is rarely seen in France.

The young spring shoots and the stalks of the unfolding leaves blanched by rising through the natural ground in a wild state, or by earthing up in the gardens, are the parts used, and when boiled and dressed, like asparagus, are not inferior to that vegetable. They form also an excellent ingredient in soups. Sometimes the ribs of the large leaves are pulled and dressed as asparagus after the plant has ceased to send up young growths. By forcing, it may be had in much perfection, from November till May, a period including all the dead months of the year. Vegetables are seldom improved by this process, but this article forms an exception, the forced produced in mid winter being more crisp and delicate than those obtained in regular seasons. Thomas Smith.

Philadelphia, Labyrinth Garden, April 27.

(From the New England Farmer)

BLANCHED SEA-KALE.

Gen. H. A. S. Dearborn, President of the Massachusetts Horticultural Society, has kindly presented us with the cuttings of some blanched sea-kale plants, raised by him at his residence in Roxbury. These, boiled and dressed like asparagus, were finally equal to that vegetable as an article of diet. The plants were raised in rows, and we believe the mode of cultivation was the same usually pursued for that esculent. But the mode of blanching was peculiar, and seems to present advantages over the common custom of covering with earthen pots, or earthing up, as in celery. The process was something like the following:—

Two boards about 12 or 14 inches wide, and 10 or 12 feet long, were nailed together at the edges, so as to form a right angle; so that when the edges not nailed were turned down, and placed on the ground, they formed an angular covering like the roof of a house, the highest part being the ridge. Cross-boards, properly shaped, were then nailed at the ends, so as to prevent warping, and complete the covering. These were placed over the rows, and excluded light from the vegetables as effectually as earthen pots, and with much less labor and expense of time and materials.

The sea-kale is not very generally cultivated in this country. *J. Lowell, Esq.* gave the following notices of this vegetable, in an article formerly published in the Mass. Agr. Repository.

"The sea-kale is a plant of recent introduction in Europe. Perhaps its culture cannot be traced back beyond forty years. It is a native of the sea coast of the southern parts of England, where it is found growing in sea land.

"It is very hardy—grows in any tolerable soil—is perennial, and costs not half the labor bestowed on asparagus. It may be raised from the seed or from the root; and fifty plants, occupying a very small space, will supply a single family. In its taste it resembles the cauliflower. The only labor it requires is to cover it with sand or earth, or with pots, or boxes, in March, so as to exclude the light, and to blanch it and make it white. If not blanched, it is neither so beautiful to the eye, or so tender or so delicate to the taste as if blanched. It should be thoroughly boiled, and it is better if boiled in milk and water. It should be served up like cauliflowers, with melted butter. It comes in at a season in which our vegetables in this country are very deficient.

"If in England and France, where it has to compare at the same table with green peas and spinach, it is admired as a luxury, can it be possible that it will not eventually succeed with us?

"If in older countries, with milder and shorter winters, in which they give you green vegetables nine months in the year, they value such a plant as sea-kale, it must be of greater value to us, whose soil is bound in frost from the 10th of November to the first of April, and sterile to the first of May.

"It requires no manure as the asparagus does. It is indeed injured by manure, and if our farmers in the interior, had a patch of it in their gardens they would have earlier succulent vegetables to eat with their salt provisions than any other they could raise."

(From the Baltimore Gazette.)

SILK.

Extract of a letter from the House of Messrs. Rathbone, Brothers & Co. in Liverpool, to a lady in the neighbourhood of Sumterville, S. C.

"We submitted the skein of silk which you sent us, and the box of your cocoons, to a clever and experienced practical man, who has established himself here as a Silk Broker; and we now send you the result of his examination, with some remarks on the reeling of silk, which may be useful for your government and that of your friends; to whom you are at full liberty to communicate them, if you think they will prove serviceable."

The Opinion.—The white cocoon is decidedly of the best quality; from which I should conceive the silk was made, which accompanies it. It is very similar to China silk, which is imported into Great Britain in very considerable quantities; and, being applicable to almost every purchase, in a great measure regulates the price of other silks. It is now worth about 12*s* per lb. or $2 66 cents; but on an average state of the market, it may be stated at 14*s* or $2 88 cents. The two yellow cocoons, of the deepest colour, are the best of the remaining three of lighter shade; and the primrose one, is evidently the result of unhealthy worms. This circumstance was, I conceive, owing to the temperature of the atmosphere not being sufficiently warm; or, the mulberry leaves, on which the worms were fed not having been sufficiently dry. Silk worms, fed on lettuce leaves, frequently spin silk of a *pale* yellow, or primrose, neither of which are of appreciated quality.

Your friends cannot consult a better authority, on these subjects, than Count Dandolo, (see a translation of his work on the cultivation of silk, published by the British, Irish and Colonial Company, of which I am a director.) He points out, in the clearest manner, the various changes of the worm, and the particular heat and food requisite to the cultivation of good silk.

However, whatever may be the success attendant upon the attainment of good cocoons, *every thing depends* upon the proper selection and reeling of them into the hank. The Italians excel in this. Therefore, their silks are peculiarly adapted to our finest manufactures. Although our importations from the East-Indies are great; and this trade is of such vital importance to our successful competition with the continent, it is to be regretted, that neither the East-India Company, nor the private merchants, have hitherto employed any competent persons to superintend the reeling of the silk. If that was done, I have not the slightest doubt but that silks, of the eastern production, would render us altogether independent of either France or Italy; for it is an established fact, that silk of the *best* quality can be produced, in the East-Indies, at a lower rate than in Europe.

I have been long impressed with the idea that many of our other colonies are also well calculated for the cultivation of this valuable material; and, as the silk manufacture is *daily increasing* in importance, there will be every inducement to extend the cultivation of a produce, which has proved *a source of immense profit to those who have hitherto embarked in it.*

The three things principally requisite are, that the silk should be *clean, even*. and *not sticky:* the first of these properties depends on the caution of the reeler. He ought to take great care not to allow any of the inferior cocoons to be intermixed with those of a good quality. The second property depends upon the caution of the reeler taking care that when one cocoon breaks, another is instantly substituted. And the third depends upon the silk not being reeled too rapidly, and not being well crossed upon the hank, but also well acted upon by the croise.

The following information may be useful as shewing the average prices, which the Company and private Bengal silks have realized in this country for the last nine years.

Company.				*Private.*			
1820,	212	*pen.*	per lb.	1820,	193	*pen.*	per lb.
‘ 1,	214	do	do	‘ 1,	185	do	do
‘ 2,	249	do	do	‘ 2,	180	do	do
‘ 3,	216	do	do	‘ 3,	163	do	do
‘ 4,	210	do	do	‘ 4,	152	do	do
‘ 5,	241	do	do	‘ 5,	189	do	do
‘ 6,	174	do	do	‘ 6,	137	do	do
‘ 7,	203	do	do	‘ 7,	170	do	do
‘ 8,	204	do	do	‘ 8,	187	do	do

The proper way to reduce these sums into the current money of the United States, is to consider every fifty pence as one dollar; for that, according to Mr. Smith's Report to the Senate, is one half-penny more than the actual value of the Spanish dollar. The American dollar is still less.

(From the Daily Troy Sentinel.)

ENGRAFTING GRAPE VINES.

Mr Holley:

The successful *engrafting of the grape vine*, which has long baffled the skill of nursery-men, in this country, and of the Vignerons in Europe, so as to make the operation as sure and as easy, as in the well known operation of engrafting on trees, was, so far as I know, first made known to the American public, by my late worthy friend, J. J. Dufour, of the Vevay Swiss Vineyard, Indiana. In his very excellent *practical* treatise, "The American Vine Dresser's Guide," 12 mo. pp. 317. Cincinnati, 1826, the result of twenty-five years' experience in the grape culture in the United States, at page 225, he fully describes this mode. The author of this work died at Vevay, in February, 1827, some years previous to which he had instructed me in his mode of engrafting, and which I have found, by experience, to be perfectly successful. As the author made no secret of it, so I have not, but have told every body that applied, taking care to inform them who informed me. Dufour is dead; every body, about here, now practises upon his plan; but no one, so far as I can discover, remembers the man, and many are claiming it as a sort of mystery of their own! His plan is, to saw off the root of the stock, into which you would insert the graft, under ground; bore a small hole into the end of the root-stock, and insert the graft, with one or two buds, then keeping the root covered with mellow earth, and the upper bud just even with the surface, and the whole process is accomplished. I never water my grafts, and I have had them grow five feet, the main vine, the first year, besides bearing ten to thirty bunches of grapes. Some care is necessary, in rubbing off the superfluous shoots, but the operation is easy, and as sure as the inserting of a graft into an apple or plum tree. If the root-stock is of a vigorous growth, and the graft well chosen, having the wood of the two last years' growth upon it, and from a bearing vine, the graft will always bear fruit the first year, and of the quality of the graft.

Dufour had another mode, common in France, Germany and Switzerland, by splitting the root-stock, and inserting the graft, in the shape of a thin wedge, either end-wise or vertically; but this is less certain of success, judging by my own experience.

He sometimes put in two or three grafts, into one large root-stalk, as these may be inserted any where in the wood of the vine, as well as in the pith, or centre. A sharp tool, such as a centre-bit tool, is to be preferred to a gimblet, because it cuts the wood more smoothly. Let it be Dufour's mode of engrafting, and no secret, and no matter how many derive a benefit from it. You may publish this, if you think proper.

Very respectfully yours,
Horatio Gates Spafford.

May 1, 1830.

DOMESTIC ECONOMY.

TRAFALGAR CRADLE—*American System.*

I can tell you, *Mr. Skinner,* of a cradle invented by *Cousin Tabitha,* your well known correspondent, that will rival Reed's famous patent. This cradle has a crank movement, not rotary like the common one, nor horizontal like Reed's, but undulating like the sea: and as the motion is well represented by the figures on that calico, once called *Nelson's waves,* (better known to us when we were tributaries to Manchester.) this useful household machine has been named the *Trafalgar cradle.* The name is also appropriate from the inscription, in staring capitals, placed upon it by the lady inventress.—"*England expects every man to do his duty.*" The astounded husband met with it in "my lady's chamber," not "three weeks after marriage."

Jeremy.

Practical Rules for Bottling Ales.

The first question to be considered is, whether the ale is in proper order for bottling? If on drawing out the vent-peg of the cask the liquor spirts up with force, it is a proof that the fermentation is still too active to render it safe to bottle. The best way of proceeding in this case will be to fill up the bottles and to leave them uncorked for 24 hours. Should they have lost by frothing over, or should the froth have subsided in the bottles, they are then to be filled up within two inches of the corks; the corks are then to be driven home, and the bottles are to be laid on their sides. The use of laying them on their sides is in order to soak the corks and swell them, so that they may fit perfectly tight, and thus totally prevent the escape of carbonic acid, for it is to the presence of this gas that the briskness is attributable. It is also possible that when the bottles lie on their sides they offer less obstruction to the last feeble efforts of fermentation than if they stood in the high column which an upright posture would produce. Pressure resists chemical changes. In this state the drink becomes up in the bottle, as it is termed. If it be strong it remains quiet; if weak, it begins to burst the bottles; and as soon as notice of this kind is given by one bottle, all the rest should be set standing up; this will prevent further bursting. In winter the bottles must be kept moderately warm; in summer cold. But if on drawing the vent-peg from the cask the liquor appears quite still, its taste should be examined. If it is still a little saccharine, and has a little briskness, it is just in order for bottling; and the bottles, when filled, need not be left uncorked for any length of time. If the drink appears vapid and acidulous it is totally unfit for bottling. Home-brewed ales made in small quantity, and in cold of winter, do not succeed well for bottling. The temperature is apt to fall in the tun before the attenuation is completed; the yeast then subsides; the drink is drawn off into bottles, and being now destitute of yeast, scarcely any fermentation continues. There is little alcohol formed, and hence the drink does not keep. All this would be prevented if the heat of the tun were kept up by artificial means, until a good attenuation had been obtained.

Dye from Potato-Flowers.

Sir J. Sinclair has ascertained, by a series of experiments conducted under his superintendence by G. Page and Co., dyers, Prince's street, that permanent and beautiful colours in silk, cotton, and woollen goods may be produced from the flower of the potato. Sir John says, that these colours are "equal to the finest tints procured from the most valuable foreign materials, and in richness of shade they are likely, in some cases, to be even superior;" and he adds, that "it is a peculiar advantage attending this discovery that the cutting of the flowers of the potato is not prejudicial to the plant; on the contrary, by preventing the formation of the seed or apple, there is reason to believe that it will add to the weight and improve the quality of the root."—*Caledonian Mercury.*

LADIES' DEPARTMENT.

STANZAS.

BY THE AUTHOR OF "RICHLIEU."

I've sat and seen one bright wave chase
Its fellow on the strand,
Then fall away, nor leave a trace
Upon the printless sand—
Though scarce the pebbles felt the shock,
The waves have worn the solid rock!

I've sat and heard the autumn wind
Amid the branches play,
So softly mild, so blandly kind,
It scarcely stirred the spray—
Yet soon it bore Spring's verdant birth,
To wither on its native earth.

I've sat and seen the evening sun
Sink from his golden sky,
His long bright race of glory run,
And close his golden eye;
So slow he passed, scarce changed the light,
And yet he left the world in night,

And like yon sea is human life;
Events, like billows, roll,
Moment, on moment, strife to strife,
That change us, to the soul;
And joys, like autumn leaves, fall fast—
Hope sets—and being's light is past.

I've stood on earth's most daring height,
And seen day's ruler rise,
In his magnificence of light,
To triumph through the skies,
And all the darkness of the world,
Far from his shining presence hurled.

All, too, that fades upon the earth,
Too weak to linger here,
Re-blossoms with a second birth,
To deck the coming year;
Shall hope, then, man's eternal dower,
Be frailer than a failing flower!

Ah no! like autumn leaves, that die,
That bloom again in spring,
Fresh joys shall rise from those gone by,
And purer incense bring,
And when, like suns, hope sets in night,
Shall she not beam from worlds more bright?

(From the Journal of Health.)

How to Preserve the Complexion.

To the question which has been proposed to us by some of our female readers—"What is the best fluid as an ordinary wash for the face—calculated, while it removes impurities from the skin, to preserve unimpaired the freshness of the complexion?" We reply, without hesitation—simple soap and water—both articles being as pure as can be obtained. We have pointed out in a former number, most of those causes by which the softness, transparency, and brilliant colour of the skin, are impaired. These being carefully avoided—daily ablutions with soap and water will effectually answer all the purposes for which a long list of cosmetic lotions are in vain resorted to. Our female readers may rest assured that the only beautifiers of the skin are personal cleanliness—regular exercise—temperance—pure air, and a cheerful temper. If any one of these be neglected, the skin and complexion will invariably suffer.

It is only by preserving the skin free from all impurities, and thus enabling it to perform, with freedom, its important functions, that any external application is at all useful. To this end there is nothing so well adapted as pure water, with the occasional addition of soap. They who, from a ridiculous idea that washing frequently with water injures the skin, substitute distilled liquor, cologne water, or any other fluid, simple or compound, pursue a practice most effectually calculated to destroy its suppleness, transparency, and smoothness, and to cover it with unseemly blotches.

But it is not merely as a local wash we would enforce upon all the use of pure water. When applied in the form of a bath to the whole surface, at those seasons of the year in which its use, in this manner, can with propriety be resorted to, it is productive of the most beneficial effects—promoting the general well-being of the system, as well as that healthy condition of the skin, independent of which it can lay no pretensions whatever to beauty. It is a well-known fact, that those nations by whom bathing is the most frequently resorted to, are those distinguished, most generally, for elegance of form and freshness of complexion.

MISCELLANEOUS.

The late Dr. Wollaston.—Small as was Dr. Wollaston's laboratory, and minute as were the means to which he had recourse in making his experiments, they proved exceedingly profitable to his purse. His discovery of the malleability of platinum, it has been asserted, alone produced about thirty thousand pounds. He is also said to have derived great pecuniary advantages from several of his other and even minor discoveries and inventions, which, by being of a nature likely to make them immediately and generally useful, were certain in a short time to produce a considerable return. It has been doubted by some whether this distinguished man, great as he was in science, and possessing many excellent qualities, would not have been greater had his views been somewhat less directed to the acquisition of a fortune. But if the following story be true—and there is every reason to believe that it is so—it proves how very distinct a thing is the prudence which acquires wealth, from the iron-hearted parsimony which buries it:—Having been applied to by a gentleman, who was involved by unexpected difficulties, to procure him some government situation, Dr. Wollaston's reply was, "I have lived to sixty without asking a single favour from men in office, and it is not after that age I shall be induced to do so, even were it to serve a brother. If the enclosed can be of use to you in your present difficulties, pray accept it, for it is much at your service." The enclosed was a check for ten thousand pounds.—*Annual Biography,* 1830.

(Items from late English papers.)

The Emperor of Austria gets up regularly every morning at seven o'clock, and devotes the rest of the morning until one o'clock, to audiences and state affairs. At one o'clock he takes a walk, sometimes with the Empress, but more frequently with his Grand Chamberlain, or one of his aides-de-camp. He dines at four o'clock, and this repast consists of five dishes and a desert. He drinks nothing but water with his dinner, and takes a small glass of Tokay with his desert. After dinner he takes a walk in what is called Paradise Gardens, where a great number of pigeons are bred; and at six o'clock takes coffee in the pavilion of the new Imperial garden. The Empress prepares the coffee herself. She usually dresses in the most simple style, and acts towards her husband like a good housewife. The Emperor employs the rest of the evening, until supper time, in playing trios on the flute with one of his aides-de-camp, and one of the nobles of the Court. All the members of the Royal family have learned some business. The Prince Imperial is an excellent weaver, and the Archdukes are all good carpenters and cabinet-makers. The greatest attention is paid to their morals.

Mr. Gurney's Steam Carriage.—So far from this clever invention being at a stand, as many persons have reported, from interested motives, the success of the vehicle is certain. The carriage has actually been running on the roads and in the streets of the metropolis for several hours during many days of the last month. May we not anticipate the acceleration of the mails, through its agency, at no distant period of time? The first public carriage for passengers is expected to start early in the spring.

There is now in the possession of Mr. S. Summer, coal-merchant, in Leicester, a piece of Portland hard coal, from the Duke of Portland's colliery, weighing 15 cwt., and measuring in length 14 feet.

THE FARMER.

BALTIMORE, FRIDAY, MAY 21, 1830.

☞ We are sorry to learn that a considerable portion of the growing crops of wheat on the James River has been seriously injured by the depredations of its most formidable enemy the fly.

The fruit we believe has escaped injury, and promises to be abundant. The spring has advanced more uniformly than usual, unmarked by sudden changes or extraordinary spells of moisture or drought.

☞ Since the above was sent to the printer, we have seen in the Easton Gazette, the following melancholy evidence that the ravages of this dreadful enemy to the prosperity of the farmer, pervade the Eastern Shore of Maryland. The more regretted because of their almost exclusive reliance on that grain as their staple commodity.

HESSIAN FLY AGAIN.

Easton, (Md.) May 15.

The hopes of our farmers are again nearly blasted by this pernicious insect.—Accounts have been daily brought in by the farmers, from all parts of this county, of the great ravages of the fly. In some instances, in our best lands, best farmed, the destruction is dreadful and astonishing, and we hear of no wheat except the rare-ripe that has escaped at all—that we are told has not been injured—there are a few lots and nicely prepared fallow fields of this rare-ripe wheat that are luxuriant and beautiful—nearly one half the crop of wheat, it is feared, is already gone. Upon many of the thin lands there will scarcely be any crop at all. The appearance of the fly, it is stated, was rather later than usual, but the havoc it committed was proportionably rapid and great.

We received the following communication from a gentleman who resides a few miles from Easton.

Dear Sir,—Upon walking this afternoon into a lot of my early wheat, I discovered a large flock of birds, (known to some, by the name of "rice birds,") plucking the grains of wheat from the head. On examining the heads of wheat, which they had attacked, I found them stript of almost every grain. I am afraid that these birds, if they continue much longer with us, will prove very destructive to our crops of wheat. Immediately upon discovering the havoc that they had made, I commenced shooting at them, but it had little or no effect in driving them off; in a very short time after firing at them, they returned again.

N. B. Fearing that some farmers are not aware of the destruction of these birds, I send you the above for their information.

If the experience of half a century is not to be entirely thrown away, it is time that they should profit of such a long series of mournful experience, in regard to the precariousness of this crop. We have before suggested the practicability of having *very cheap*, strong, plainly constructed *steamboats*, to trend regularly along the shores of their rivers, for marketing, fruits, poultry, and butter; by means of which every part of that beautiful portion of the state might be brought as it were, in very near proximity to our markets—and again—why do they not turn their attention to the rearing of fine horses for saddle and harness. Thousands of horses are reared in New York, as we have lately had an opportunity to know, which, trotting their mile in 3½ minutes, sell readily for $250 to $300. Yet what do we see in Maryland? Eastern Shore gentlemen with *large farms* coming to Baltimore, to buy second rate horses at high prices! If they would lay a heavy tax on stallions that would banish bad ones from the state, and pluck up spirit even to *unite* and buy first rate horses to breed from, the state would soon *receive* for horse flesh *the thousands* that are now sent out of it for that object. ☞ MEM.—How can we characterise the stupid jealousy that is evinced in the country towards Baltimore. The proprietor of a single mill here has manufactured in ten or eleven months more than 100,000 bushels of wheat—can any thing be more obvious than that every agricultural community is benefited in proportion to the number of *consumers* in the state who do not live by agriculture—and who must therefore be their customers without being their rivals? especially when these consumers are engaged in branches of commerce and industry, that grow naturally out of the state of things, and are not fostered by an artificial *legislative* support, derived from taxation on the cultivators of the soil? Suppose that, by the natural current of external commerce, and of augmented facilities for internal trade, the population of Baltimore should be suddenly swelled to half a million of souls; who does not perceive how immediate and positive would be the benefit to the *farmers* of the state—why then this narrow minded jealousy of *Baltimore?* Why not unite heart and hand in every measure which fairly tends to increase her numbers and prosperity? Her people must live—they cannot subsist on air; they must have their bread, and their beef, and their pork, and their mutton, their vegetables, their poultry, their butter. To enable them to buy these, they must have their profits on their mechanic trades, and on the transportation to foreign markets of our *agricultural products.* Well! is it not clear that the more there are engaged in commerce, and in unforced manufactures, which are not upheld by a tax on the farmer, the better it is for the farmer? Nay more—the farmer has not only a direct personal interest in the *number* of the inhabitants of the city, he is also deeply concerned that these inhabitants should be out of debt, easy in their circumstances, prosperous, aye, and *opulent* too! better were it for the farmers of the state if every man in the city could afford to live in a style of eastern magnificence. If every householder could spread his floors with turkey carpets, and hang his walls with the most costly products of the loom—if every one could keep twenty horses, and as many servants, as long as these signs of wealth are not the fruits of taxes on the people; instead of harbouring in his bosom a low born rankling jealousy, the farmer should know that all these servants must eat—all these horses must be fed. This fine furniture, whether the product of foreign or domestic art, must be sustained by, and paid for with the *produce of the soil.*

☞ The dry style in which history is too often written, renders the study of it so little attractive, that young people are apt to peruse it without advantage, there being nothing in the mere chronological details that can fix and leave lasting impressions on the ardent and youthful mind.—To pourtray character and narrate events, in language that should charm and enlighten, without any sacrifice of truth to fiction, would seem to be a desideratum in historical writing that has been reserved for Sir Walter Scott. True it is, that the pages of Gibbon, glow with eloquence on the great events and principles that have given rise to civil, and characterised religious revolutions and wars, but Sir Walter Scott throws the charms of romance into the minutiæ of history, in a way that commends it and renders it entertaining to the least studious and attentive reader.

It seems by the preface to the volumes before us that Sir Walter Scott was invited to undertake a general sketch of Scottish history in connexion with a similar abridgement of English history, by Sir James McIntosh, and of Irish history, by Thomas Moore, Esq.—Sir Walter modestly declares that there are few literary persons who would not have been willing to incur much labour and risk of reputation for the privilege of publishing in such company. The two volumes before us (Scottish History,) have been recently published in good style by Messrs. Carey and Lea, of Philadelphia. The whole is well entitled Cabinet History of the British isles, and verily we think every gentleman's cabinet ought to contain them; they are excellent reading for *old and young*.

☞ The great sale of improved short horns advertised in the American Farmer, of May 7th, will take place at Powelton, on the 16th of June next.—The daily steam boats plying north and south, with the uncommon docility of these animals, will afford a very desirable facility for transporting them.

[The following advertisement shews the extent of operations at that respectable and valuable establishment the New York Tattersalls—conducted by Messrs. Blythe and Watson.]

TATTERSALLS, NO. 446, BROADWAY.

BLYTHE & WATSON.

Auction this afternoon, Monday, April 26th, 1830. Sale to commence at half past 3 o'clock, P. M.

The regular public sale at Tattersalls, 446, Broadway, will take place this afternoon (Monday) April 26th, at half past 3 o'clock, in the sale Arena. Strangers will be required to leave a deposit at the time of purchase.

No. 1. Dark brown pony, 14 hands high, coming 7 years old, well broke and kind in harness, and an excellent saddle horse—warranted sound.

2. Grey horse, 8 years old, good in harness and fine under the saddle—warranted sound.

3. Blooded bay mare between 4 and 5 years old, sired by the celebrated full blooded horse *Roman*, from a *Duroc* mare, kind and gentle in harness and easy under the saddle—warranted sound.

4. Dark brown (aged) horse, kind and gentle in harness and a fine saddle horse.

5. Bay horse, 4 years old, broke well to harness and a good saddle horse—warranted sound.

6. Brown horse, 7 years old, good harness and saddle horse, well calculated for a lady—warranted sound.

7. Grey horse, 6 years old, kind in harness and a strong serviceable family horse, accustomed to the city—warranted sound.

8. Bay mare, 5 years old, out of the noted *Membrino*, a fast traveller, good in harness or under the saddle.

9. Sorrel horse, 7 years old, well hroke to harness, a fleet traveller, easy under the saddle—warranted sound.

10. Bay horse, 7 years old, well broke to single and double harness, and a fleet traveller.

11. Bay horse, good in harness, and excellent under the saddle.

12. A pair of aged horses, well matched, kind in harness—warranted sound.

13. Dark bay horse, 6 years old, flowing mane and tail, well broke, kind, spirited, and fleet in harness, a fine saddle horse—warranted sound.

14. Dun coloured colt, 4 years old, broke to all harness and good under the saddle—sired by *Duroc* from a *Membrino* mare, will trot a mile in three and a half minutes—warranted sound.

15. Horse, gig, and harness, bay horse, 7 years old, kind in all harness and a good family horse—warranted sound.

16. Coachee, horses, and harness—horses are aged, well broke, and kind in harness, coachee and harness in good order.

17. Carriage, horses, and harness; horses of the best blood, raised at the manor of Mr. Livingston, have fine spirit and are remarkably gentle, warranted in every respect.—The carriage was built by Ross, to order, is now in good repair, and with the harness, originally cost $720. The object of disposing of them, is the owner leaves the city, on the first proximo. In addition to others which are expected and will be described at the time of sale. After which, a variety of carriages, single and double wagons, gigs, buggies, &c. &c. as follows:

1 second hand coach, running part new, in good order, sold on a credit of six months for approved paper.—1 do. barouche wagon.—1 do. Boston gig.—3 do. gigs in good order—wagons, sulkies, buggies, &c. &c. new and second hand saddles, harness, &c.—1 new barouche with dickey seat.

The proprietors have adopted the following rule—that when a sale is made of horses which are warranted, the proceeds will be retained in the hands of the proprietors for *three days*, when, unless a claim is made by the purchaser, they will be paid over, and after that period they will not hold themselves responsible.

Conditions of sale—*Cash on delivery*—in current money. The horses and carriages to be seen during the morning.

Prices Current in Boston, May 14.

Apples, best, bbl. 2.25 a 3.00 *Beans*, white, bushel .75 a 1.00. *Beef*, mess, bbl. 9.00 a —— cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, .7 a .9; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.25 a —— Genesee, 5.25 a 5.50; Rye, best, 3.00 a 3.87. *Grain*, Corn, bu. 50 a 55; Rye, .65 a .70; Barley .62; Oats .35 a .40. *Hogs'-Lard*, 1st sort, new, lb. .7 a .8. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.50 a ——; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a 2.00; Orchard Grass, 3.00; Fowl Meadow, 3.00; Rye Grass, 4.00; Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33: Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel — *Wool*, Merino, full blood, washed, .45 a 60; do. do unwashed, .25 a .40; do. three-fourths, washed, .37 *a* .45, do. half blood, .35 *a* .38; do. quarter, washed, .30 *a* .33; Native, washed .30 a .33; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, May 15.

Bees-wax, yellow .20 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .11; Alabama, 9 a .11½. *Cotton Bagging*, Hemp, yd. .18 a .21, Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4 75 a —— Canal 4.75 a 5. ; Balt. Howard st. 5. a 5.12½ Richmond city mills, —— country, 4.87½ a ——Alexand'a, 4.75 a 5. Fredericksburg 4.75 a —— Petersburg, 4.75 a .——; Rye Flour, —— a 3.00; Indian Meal, per bbl. 2.50 a —— per hd 12.50 a —— *Grain*, Wheat, North, 1.00 a —— Vir. 84 a 90; Rye, North, 58 a 60; Corn, Yel. Nor. .— a 50; Barley, — a — Oats, South and North, .28 a .36; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7 00 a 8.00. *Provisions*, Beef, mess 9.50 a 9.75; prime 5.50 a 6.25; cargo 4.50 a —— Butter, N. York, — a — shipping, .6 a 11; Lard, .6¾ a .7; Pork, mess 12.50 a 13.—; prime 9.00 a 9.37½.

Prices Current in Philadelphia, May 17.

Bees-wax, yellow .21 a .22; *Beans*, bushel $.85 a 1.00; *Beef*, mess 10.00 a —— prime 8 a 9, cargo 7; *Butter*, No. 1, 6 a 7, No. 2, 5 a 6; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11½, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West .31 a .32; *Flax* .6 a .7. *Flour*, sup. 4 57, fine, 4.25 a —— Rye 3.18¾ a —— Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat .98 a 1.00 Rye 48 a 52, Corn l. c. white, 35 a .36½, l. c. yellow, 39 a .40, u. c. round, 44 a —; Oats .28 a , 30; Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia 9 a 9½, Western .9 a .9½; *Hemp*, 210 a 220; *Lard*, .5 a .7; *Oil*, linseed, 72 a —; *Pork*, mess, 13.00 a ——, prime 11.50 a —; cargo 10. *Rice*, 2 25 a 2.50; *Tobacco*, Kentucky .4 a .7, Vir. 4 a .5½. *Wool*, common washed lb. .24 a .30, half blood .28 a 33, three quarters blood .32 a .34, full blood 35 a .40; unwashed, generally 6 cents less, according to quality. &c. &c.

IMPROVED DURHAM SHORT HORNED CATTLE.

Mr. Powel's Stock of High Bred Short Horns, consisting of sixty males and females, either imported or bred by him, will be offered for sale at Powelton, near Philadelphia, on Wednesday, 16th of June, at 10 o'clock. These animals *have never been offered for sale, nor would they be sold if the owner were not about to leave America for some time.* WILLIAM HUGHS.

TREATISE ON SILK.

For sale at the office of the American Farmer, a treatise on the Culture of Silk, detailing the method of *Rearing the Mulberry, Managing Silkworms, and Reeling Silk*, by Gideon B. Smith. This little pamphlet is printed on a single sheet of paper, in a compact form, convenient for sending by mail, and the postage can in no case be over 6 cents. Price $1 a dozen or 12½ cents single.

HARVEST TOOLS AND OTHER AGRICULTURAL IMPLEMENTS.

SINCLAIR & MOORE, Pratt street wharf, offer for sale a good stock of Grain Cradles and Scythes, also Grass Scythes and Sneads complete or separate, Sickles, Grass Hooks, Whetstones by the box or retail; also their highly improved Wheat Fans and Threshing Machines, together with a general supply of Ploughs, Harrows, Cultivators, &c. &c.

AGRICULTURAL IMPLEMENTS.

The subscriber has on hand a supply of Grass and Cradle Scythes, Scythe Sneeds, Scythe Rifles, and Stones, and Grain Cradles; Robbins' celebrated Corn Planter, which is very useful for planting various kinds of seeds, such as Mangel Wurzel, Peas, &c. &c. He has also on hand Wheat Fans, which he can warrant with confidence, and likewise his Patent Cylindrical Straw Cutters, which has never been equalled in any country; with a general assortment of Farming Implements and Garden Seeds, all of which are good of their kind, and such as he hopes will merit the continuance of that liberal patronage which he has heretofore received. JONATHAN S. EASTMAN,
No. 36 West Pratt street.

ALMANAC.

1830. May.	Sun. Rises.	Sun. Sets.	Length of days.	Moon.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 22	4 46	7 14	14 28	sets.
Sunday,...... 23	4 45	7 15	14 30	8 45
Monday,..... 24	4 44	7 16	14 32	9 45
Tuesday,.... 25	4 41	7 16	14 32	10 37
Wednesday, 26	4 43	7 17	14 34	11 25
Thursday,... 27	4 43	7 17	14 34	morn.
Friday,....... 28	4 42	7 18	14 36	0 05

Moon—New Moon, 22d, 2h. 5m. Morn.

BALTIMORE PRICES CURRENT.

Baltimore Markets.—There is scarcely any change in the prices of any of the staple articles of the market. Howard street flour is heavy at our quotation; the wagon price is $4.62½. The season has been peculiarly favorable for early fruit and vegetables, and our markets are now supplied in the greatest profusion with Strawberries at 12½ a 25 cents a quart; Green Peas at 10 a 12½ cents a peck, and Gooseberries at 10 a 19¾ a quart. Butter, favorite prints, sells at 25 cents a pound. Soft Crabbs 25 a 31¼ per dozen; Beef, best pieces, 8 cents, ordinary 6; Veal, best pieces 7 cents, ordinary 5; Lamb, qr. 25 a 62½.

Tobacco.—Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4 50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6 00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 18.00.—Fine yellow, 20.00 a 25.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4 00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 377 hhds Maryland and 15 hhds Ohio, 12 hhds Ken. and 2 hhds Vir. total 406 hhds.

Flour—best white wheat family, $6 00 *a* 6.50—super. Howard st. 4.68¾ *a* 4.75—city mills, 4.62½ *a* —— Susquehanna, —— Corn Meal, bbl. 2.25—Grain, best red wheat, .90 *a* .95; best white do. .95 *a* 1 00; ordinary to good, 80 *a* 85—Corn, white, .35 *a* .36; yellow .37 *a* .——Rye, .50 *a* .—;—Oats, 30 *a* —— Beans, .90 *a* 1.00—Peas, 65—Clover seed, 3.75 *a* 4.—Timothy, 2 50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb —Barley, — *a* ——Flaxseed, 1.00 *a* ——Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* 12 —Alab. .9½ *a* .11—Tenn. 9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21 *a* 21½; in bbls. 23 *a* 23½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* 22 -three-quarter, .28 *a* .30—full do .30 *a* .35, accord'g to qual —Hemp Russia, ton, $215 *a* 220: Country, dew-rotted, 120 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.50 *a* —— Mackerel, No. 1, 6 50 *a* —— No. 2, 6 00—No. 3 3.75 *a* 4.00——Bacon, hams, Balt. cured, .9 *a* .10—Feathers, .31 *a* 32—Plaster Paris, cargo price per ton, 3 75 *a* —— ground, 1.25 bbl.— Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 5.00 *a* 5 50—Pine Wood, by the vessel load, 2.00 *a* 2.50—Oak, 3 00 *a* 3.25—Hickory, 4.00 *a* 4 25.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy.

AGRICULTURE.

(From Loudon's Encyclopædia of Agriculture.)

THE HOP.

Humulus lupulus, L. *Diœc. Pentan.* L. and *Urticeæ*, J. *Houblon*, Fr.: *Hoppen*, Ger.; *Lupulo*, Span.; and *Lupulo*, Ital.

The hop is a perennial rooted plant, with an annual twining stem, which on poles or in hedges will reach the height of from twelve to twenty feet or more. It is a native of Britain, and most parts of Europe, in hedges, flowering in June, and ripening its seeds in September. The female blossom is the part used: and as the male and female flowers are on different plants, the female only is cultivated. When the hop was first used for preserving beer, or cultivated for that purpose, is unknown; but its culture was introduced to this country from Flanders in the reign of Henry VIII. Walter Blith, in his *English Improver Improved*, 1649, the 3d ed., 1653, p. 240, has a chapter upon improvement by plantations of hops, &c. He observes that "hops were then grown to be a national commodity: but that it was not many years since the famous city of London petitioned the parliament of England against two anusancies, and these were Newcastle coals, in regard to their stench, &c., and hops, in regard they would spoil the taste of drink, and endanger the people; and had the parliament been no wiser than they, we had been in a measure pined, and in a great measure starved, which is just answerable to the principles of those men who cry down all devices or ingenious discoveries, as projects, and thereby stifle and choak improvements."

The hop has long been cultivated extensively in many parts of England, but not much in Scotland or Ireland. According to Brown, hops are not advantageous in an agricultural point of view; because much manure is abstracted by them, while little or none is returned. They are an uncertain article of growth, often yielding large profits to the cultivator, and as often making an imperfect return, barely sufficient to defray the expenses of labor. In fact, hops are exposed to many more diseases than any other plant with which we are acquainted; and the trade affords a greater room for speculation, than any other exercise within the British dominions.

There are *several varieties* of the hop. The writer of *The Synopsis of Husbandry* distinguishes them under the titles of the Flemish, the Canterbury, the Guldings, the Farnham, &c. and says, that the Flemish is held in the lowest estimation of any. It is, says he, of a smaller size, of a much closer contexture, and of a darker green color than any of the rest, and grows on a red bind; and has so near an affinity to the wild or hedge-hop, that it would never answer for cultivation, did it not possess the property of resisting the blast with greater vigor than the other kinds; so that, in years when these last are covered with flies and lice, the Flemish hop appears strong and healthy. At picking time, likewise, this kind of hop, he says, takes less damage, either by the sun or rains, than any other; and upon these accounts, it may answer the views of the planter to have a few acres of it, which will secure him a crop in a blasting season, when those of the more valuable class are destroyed, so as to be worth nothing.

The soils most favorable to the growth of hops are clays and strong deep loams; but it is also of great importance that the subsoil should be dry and friable, a cold, wet, tenacious, clayey understratum, being found extremely injurious to the roots of the plants; as, when they penetrate below the good soil, they soon become unproductive, and ultimately decay. Bannister says, that a chalky soil is, of all others, the most inimical to the growth of this vegetable; the reason of which he takes to arise from the dry and parching quality of the chalk, by which the roots are prevented from absorbing a quantity of moisture, equal to the supply of the vine or bind with sap during its growth; for though a dripping summer is by no means kindly to the welfare of the hop, yet since the vine in a healthy state is very luxuriant, and furnished with a large abundance of branches, leaves, fruit, &c. it follows that the demand of moisture from the soil must be proportionably great to preserve the plant in health and vigor; and for this reason the ground ought not to be deficient in natural humidity. Hence we generally find the most luxuriant vine growing on such land as is deep and rich, as moulds, &c.; and in these grounds it is common, he says, to grow a load on an acre. But it is to be observed, however, that the abundance of fruit is not always in proportion to the length of the vines; since those soils, which from their fertility cause a large growth of vine, are more frequently attacked with the blast than land of a shallower staple, where the vine is weaker and less luxuriant.

But though *rich moulds generally produce a larger growth of hops than other soils*, there is one exception to this rule, where the growth is frequently eighteen or twenty hundred per acre. This is on the rocks in the neighborhood of Maidstone, in Kent, a kind of slaty ground, with an understratum of stone. On these rocks there is a large extent of hop-garden, where the vines run up to the tops of the longest poles, and the increase is equal to that on the most fertile soil of any kind.

The most desirable situation for a hop plantation is ground sloping gently towards the south or south-west, and screened by means of high grounds or forest-trees, from the north and north-east. At the same time it ought not to be so confined as to prevent that free circulation of air which is indispensably necessary where plants grow so close together, and to such a height. A free circulation of air, in a hop-ground, not only conduces to the health and vigor of the plants, but also prevents the crops from being blighted, or what the hop-farmers call fire-blasted, which often happens towards the middle of a large close planted hop ground; while the outsides, in consequence of the more free circulation of air that there takes place, receive no injury whatever.

Bannister asserts, that those fields that lie within a few miles of the sea, or in the neighborhood of marshy or fenny levels, are seldom favorable to the growth of hops, as such grounds generally miscarry in a blasting year; and though, from the fertility of the soil, they may perhaps bring a plentiful crop in those seasons when the growth is general, such situation is by no means an eligible spot for a hop ground. In Worcestershire and Herefordshire hops are very generally grown between the rows of fruit trees in dung or ploughed orchards.

In preparing the soil previously to planting, considerable attention is necessary by fallowing, or otherwise, to destroy the weeds, and to reduce the soil to as pulverised a state as possible. The ridges should also be made level, and dung applied with a liberal hand. The most effectual preparation is trenching either by the plough or by manual labor.

The mode of planting is generally in rows, making the hills six feet distant from each other; though there are some people who, from avaricious motives, prefer a five-feet plant. But as this vegetable, when advanced in growth, produces a large redundancy of bind or vine, and leaves, it should seem that six feet cannot be too wide a distance; and that those which are planted closer will, from too confined a situation, be prevented from enjoying a free circulation of the air; from which much injury may proceed, as blasts, mildews, mould, and other accidents, not to mention the disposition of the vine to house or grow together at the tops of the poles, whereby the hops are so overshadowed as to be debarred the influence of the sun, and thus not arrive to half their growth.

As the planters differ in their number of hills to be made on the same given quantity of land, so are they no less capricious as to the manner of placing them; some choosing to set them out with the most cautious regularity in rows of equal distances, whilst others prefer a triangular plant. The former method has this advantage over the other; that the intervals may, in the early part of the summer, be kept clean by means of the cultivator and harrow, from which the latter is excluded by their irregular station; and thus the ground must be tilled by the hoe at a great increase of charge, as the same labor might be performed to as much advantage with one horse, a man, and a boy, who will do more work in a day than half a dozen laborers can with a hoe.

The ordinary *season for planting* is spring, in February or March; but if bedded plants, or such as have been nursed for one summer in a garden are used, then by planting in autumn some produce may be had the succeeding year. But, according to the author of *The New Farmer's Calendar*, "the time for planting is commonly that of dressing and pruning the old vines when cuttings may be had, which is in March or April; but when root-sets are used, as on the occasion of grubbing up an old plantation, October to the beginning of November. But at whatever period they are planted, great care should be taken that the same sorts be planted together, as by this means there are advantages derived in their after-culture."

The plants or cuttings are procured from the old stools; each should have two joints or eyes; from the one which is placed in the ground, springs the root; and from the other the stalk, provincially the bind; they should be made from the most healthy and strong binds, each being cut to the length of five or six inches. Those to be nursed are planted in rows a foot apart, and six inches asunder in a garden; and the others at once where they are to remain.

The mode of performing the operation of planting in Kent is as follows: the land having been previously cleaned and prepared, dung is laid on the field in small heaps near the places where it is proposed to plant the hop slips or sets. These places are commonly marked off, by placing a number of stakes at proper and regular distances; that done, small pits are formed by taking out a spit or spade depth of earth; and the earth below being gently loosed, a certain quantity, about half a bushel, of dung is laid thereon; then the earth that was formerly taken out is again replaced, and so much added as to form a small hillock. On this hillock, five, six, or seven sets, procured from the roots or shoots of the old stock, are dibbled in. The plants are placed in a circular form towards the top of the hillock, and at the distance of five or six inches from each other. They are made to incline towards the centre of the hillock, where another plant is commonly placed.

Another mode of planting is as follows: strike furrows with the plough equally distant, eight feet asunder; when finished, repeat the same across in the opposite direction, which will divide the piece into eight-foot squares. The hills are to be made where the furrows cross each other, and the horse-hoe may be admitted between the rows both ways. According to the Suffolk husbandry, the plantations are formed into beds sixteen feet wide, by digging trenches about three feet wide, and two or three feet deep; the earth that comes out being spread upon the beds, and the whole dug and levelled. Upon this they, in March, form the holes six feet asunder every way, twelve inches diameter, and a spit deep, by which three rows are formed on each bed. Into each hole they put about half a peck of very rotten dung, or rich compost; scatter earth upon it, and plant sets in each, drawing earth enough to them afterwards to form something of a hillock.

An interval crop is generally taken the first summer off a hop plantation. Beans are very generally grown, and Bannister is of opinion that two rows of beans may be planted in each interval without any damage to the hops, whether bedded sets or cuttings. In the latter case, this method may be pursued the second year, at the end of which the vine from the cuttings will not be in a forwarder state than that from the bedded sets in the first autumn after planting. Others, however, think that neither beans.cabbages, nor any other plants, except onions, should be put in.

The after-culture of the hop, besides the usual processes of hoeing, weeding, stirring, and manuring, includes earthing-up, staking, and winter dressing.

Hoeing in hop plantations may always be performed by a horse implement, and one in use for this purpose in the hop counties, is known by the name of hop-nidget, and of which the expanding horse-hoe is an improvement; when the hop-stools are formed in the angles of squares, the intervals may be hoed both lengthways and across, and nothing is thus left to be performed by manual labor but pulling out any weeds which may rise in the hills.

Stirring, in the hop districts, is chiefly performed in winter by a three-pronged fork (provincially spud,) but it might be equally well effected then or at any season of the year by the common plough, and the expanding horse-hoe, set with coulters or prongs. With the use of the latter implement the soil might be stirred to any desirable depth, either in summer or winter; and by the use of the plough, the surface could be changed at discretion. Once going and returning would effect this, either by the paring or clearing out; that is, forming either a ridgelet or gutter between the rows, both lengthways and across. Twice or thrice going in the same direction would also succeed, and would be the preferable mode of covering in manure.

In the application of manure, various modes are adopted. Some always use well rotted stable dung; others composts of earth and dung; and a few, littery dung. In laying it on, many prefer the autumn to the spring, and heap it on the hills without putting any between the rows. Others put it all between the rows, alleging that laying it on the hills encourages insects, exposes the dung to evaporation and loss, and sometimes, when mixed with earth, hinders the plants from coming up. A great deal will be found in favor and against each of these modes, in the numerous works on the culture of the hop, which have been written during three centuries; but it must be obvious to any person generally conversant with vegetable culture, that well-rotted stable dung must be the best kind for use; and early in spring the best season for laying it on; that little benefit can be derived by the roots when it is laid on the hills, and consequently that it ought to be turned into the soil between the rows by the plough. Fifty cart loads of dung and earth, or thirty of dung, once in three years, is reckoned a good dressing; but some give ten or twelve loads every year. Too much dung renders the hops what are called mouldy, and with too little the crop will be poor and more liable to be eaten by insects.

Earthing-up commences the first May after planting, whether that operation be performed in spring or autumn. By the end of that season, the young shoots have made some progress, and the earth is then drawn up to their roots from the surrounding intervals, in order to strengthen them. The next earthing-up is in autumn, when the hills are by some covered with compost or manure; but by such as prefer ploughing in the manure between the rows, this earthing-up does not take place. Some give an earthing up of this kind in spring, and generally in February, chiefly to retard the plants, as that is found to render them less liable to disease, and the attacks of insects: for the shoots not beginning to grow till the weather is warm, they then shoot the more rapidly. In April and May, their progress is slow; but in June and July, when the nights are warm, they will grow nearly an inch in the hour. The only essential earthings up, however, are those given the first year in May, and those given annually whether in autumn or spring, and which indeed may be called replacings of earth, rather than earthing-up, after the operation of dressing, to be next described.

In dressing the hop plants, the operations of the first year are confined to twisting and removing the haulm, to which some add cuping or earthing-up in autumn. The operation of twisting, is confined to such plants as have been planted in spring, and are not expected to produce any crop that season. It is performed in the end of June or in July, and consists in twisting the young vines into a bunch or knot; so that by thus discouraging their growth, the roots are enabled to spread out more vigorously, and to acquire strength previous to the approach of the winter season.

Removing the haulm takes place soon after Michælmas. and consists simply in cutting it over with a sickle, and carrying it off the field for litter, or burning. After this operation, some add cuping. or covering the hill with a compost, but this does not appear necessary, and is in many cases left undone.

The first year's dressing of hops expected to produce flowers, such as those planted from bedded sets the preceding autumn, consists in supplying three or four half poles, that is, poles of four or five feet in length to each hill, and on removing the haulm in autumn. as in the other case.

The yearly dressing of established hop plantations consists of what is provincially called picking. This operation is generally commenced on the return of good weather, in March, when the hills are spread out, in order to give opportunity to prune and dress the stocks. The earth being then cleared away from the principal roots by an iron instrument called a picker, the remains of the former year's vines are cut off, together with the shoots which were not allowed to attach themselves to the poles the former season, and also any young suckers that may have sprung up about the edges of the hills; so that nothing is allowed to remain that is likely to injure the principal roots, or impede their shooting out strong vigorous vines at the proper season. After the roots are properly cleaned and pruned, the hills are again formed, with an addition, if not every year, at least every second or third year, of a proper quantity of compost manure, that had been previously laid in small heaps on the hop ground in the course of the winter, or in the early part of spring. At this season such sets are procured as may be wanted for the nursery, or for new plantations.

The yearly operation of stacking or setting the poles, commences towards the end of April, or at whatever period, earlier or later, the shoots have risen two or three inches. The poles are straight slender shoots of underwood, ash, oak, chestnut, or willow, from sixteen to twenty feet high. These poles are set two, but more frequently three, to a hill: they are so placed as to leave an opening towards the south, to admit the sun-beams. The manner of fixing them is by making deep holes or openings in the ground with an iron crow. Into these holes the root-ends are put, when the earth is rammed so hard about them, that they very seldom alter from the position in which they were placed, except on occasion of very violent gales of wind. Great care is necessary in placing the poles, and no less judgment and experience in determining what ought to be the proper height. When very long poles are set in a hop ground, where the stocks are too old or too young, or where the soil is of indifferent quality, the stocks are not only greatly exhausted, but the crop always turns out unproductive; as, till the vines reach the top, or rather till they overtop the poles, which depends on the strength of the stocks and the quality of the soil, the lateral branches on which the hops grow, never begin to shoot out, or make any progress.

Planters are much divided in their sentiments as to the number of poles to be set against each hill. Three poles are the general allowance, observing to place the stoutest pole to the northern aspect of the hill; though it is no uncommon practice to set four poles, and in strong land five or six, to a hill. In behalf of this latter mode it is urged, that, where the land usually produces a great redundancy of vine, it is prudent to set a number of poles answerable to the luxuriancy of the shoots. But, if a free circulation of the air be a matter of that importance to the well-being of a crop of hops, as is generally imagined, (and this is a doctrine which it is believed cannot be controverted,) the incumbrance of the hills, with an additional number of poles, cannot fail to be of infinite dis-service to the future growth of the hops; and it will be readily acknowledged, that the quantity of hops on the same given number of hills will be more considerable. where three poles only are set up, than when the hills are crowded with a larger number; whether we consider the mischief likely to accrue from the stagnated air, or from the redundancy of the vine, by which the hops are prevented from arriving to their proper size or growth. The chief art in poling a hop-ground, is first, to pitch the hole to a proper depth, about twenty inches: next to set down the pole with some exertion of strength, so that the same being well sharpened may fix itself firm at the bottom; thirdly, that the tops of the poles may stand in such a direction as to lean outwards from the hill, to prevent, as much as possible, the housing of the vine; and lastly. to tread the earth close to the pole with the foot. For want of regard to these particulars in the laborer, a moderate blast of wind will loosen the poles, so as not only to occasion a double expense, but the hazard of injuring the future crop is very great, by tearing asunder the vine, which, from its great luxuriancy, will become twisted together, or, as it is termed, housed, at the extreme parts of the poles.

(To be continued.)

The North Carolina Farmer, No. 11.

OF CLEARING LAND.

Wake Forest, May 16, 1830.

J. S. Skinner, Esq.

In clearing, consider where you want your arable, and where your timbered land, (for much of the value of your farm, and the convenience of farming will depend on the arrangement) and the form, soil and situation best fitted for each. In general the best soil should be put under cultivation, for land has too little value in this country to be made deferred stock with a view to distant profits. For the most part, clear no land that is very hilly, as in defiance of horizontal ploughing. (which I think highly of,) and the best tillage, it will soon be washed away, present a bleak naked waste, and injure, by the sand washed down, the flat land below it. These steep hills may be as valuable as any other ground for timber. The abrupt breaks that margin the creek bottoms, and form the shelf to the uplands should commonly not be cleared unless they injure the bottoms more by their shade than they will by their wash. These too are places in which woodland is commonly wanted for plantation uses.

A rule should be observed to cut no more timber than is needed for fencing and fuel, and of course there will be little or nothing left for log-rolling. A log-rolling farmer strangely misapplies his labour. The standing trees if killed by belting do no injury by their shade, however numerous they may be; no sprouts will come up around them, and of course the stumps and roots are sooner destroyed than if cut down; the litter of the falling bark and limbs are a useful manure for three or four years to come, and the decayed wood for some time longer, and when the tree at last falls, it may be burnt upon the spot as it lies, or cut and lapped together. Land cleared in this partial way will retain its fertility much longer than if the timber is wholly cut away at once, and labour is saved.

It has been objected that this partial clearing exposes men and beasts to injury from falling limbs and trees. It may be so, yet I have never heard of an accident. These fall in storms when persons and animals are not exposed.

The annual *clearing up* is also objected to. True, the necessity for this occurs; but in the aggregate there is a great saving of labour, besides the other advantages that have been mentioned.

In felling trees they should be cut within a foot of the ground, and if small, much nearer. Carts and ploughs will then pass the stumps with little obstruction, and when wheat or rye becomes the crop in course, the cradle can be swung over them.

New ground should not be raked or burnt very clean: in fact it should be left foul with all trash that the plough can cover; the first crop will not be quite as good, especially if the season should prove a dry one; but the good effects of the litter will appear in all subsequent ones.

While clearing, think of all the timber you will want for buildings, troughs, ploughs, carts, axletrees, cart-saddles, hames, posts, casks, tool handles, &c. &c., and make one cutting suffice for all.

Timber should be felled, hewn, and rived in winter while the sap is down: it is incomparably better, and more durable than if cut while filled with its juices. The frigate Constitution, (old Ironsides) and all experience, proves this.

Thus far I have spoken of the destruction of trees; I will add a few words as to their preservation; and in our old settlements this is the most important consideration of the two.

Trees may be required for fence and fuel. Cut these at the proper season for durability. The limbs and refuse parts will afford the fuel. Cut where the trees are crowded: select those that show symptoms of decay; a dead top denotes a hollow heart; some trees are hurtful by checking the growth of others. By proper selections and by gleaning up all fallen trees, a small piece of woodland will for ever support a large plantation. The use of fire wood may be economised by warm houses, by better constructed chimneys, as to size, form, and materials, than in common use, and by stoves. Fencing may be economised by lessening the number of useless enclosures, by substituting hedges of thorn, or Rowand's rose, and by ditches. Plantations supposed to be exhausted of timber, have afforded sufficient supplies after alarm had produced care, and even yielded a surplus. The quantity of woodland necessary to keep up a plantation, is far less than those habitually engaged in its destruction suppose. Many who think themselves driven to emigration might save themselves to a formed society and to the land of their birth, by half the expense of a removal, and without any of its inconveniences. Jethro Dion.

HABITS OF SHEEP

Dr. Anderson relates the subjoined anecdote, which shows how perseveringly these animals will *follow their leader*, and presents an amusing fact in illustration of natural history.

A butcher's boy was driving about twenty fat wethers through the town of Liverpool, but they ran down a street along which he did not want them to go. He observed a scavenger at work with his broom a little way before them, and called loudly for him to stop the sheep. The man accordingly did what he could to turn them back, running from side to side, always opposing himself to their passage, and brandishing his broom with great dexterity; but the sheep much agitated pressed forward, and at last one of them came right up to the man, who fearing it was about to jump over his head, whilst he was stooping, grasped the broomstick in both hands, and held it over his head. He stood for a few seconds in this position, when the sheep made a spring and jumped fairly over him, without touching the broom. The first had no sooner cleared this impediment than another followed, and another, in so quick succession, that the man, perfectly confounded, seemed to lose all recollection, and stood in the same attitude till the whole had jumped over him; not one of them attempted to pass on either side, though the street was quite clear.

THE CROPS.

The last *Winchester Virginian*, says, "The ravages of the fly have been so extensive for the last few weeks in many parts of our county, as to cause serious apprehensions on account of the wheat crop; which until the latter end of April had promised to yield an unusually abundant harvest. The prospect at present is represented as exceedingly discouraging."

The *Warrenton, Fauquier, Gazette* says, "we have had rather a cool spring. The prospect of a crop of wheat, in many sections of this country, is better than they have been for several years. In some sections complaints of injury, from the fly, are heard, but they are limited. The season has been favorable for farming business generally, and vegetation is more than usually favored. Hopes are entertained that the husbandman will be renumerated for his toil."

Locomotive Steam Thrashing Machine.

Messrs. Hawthorn, of the Forth Banks, Newcastle, have just completed a locomotive steam thrashing machine, possessed of extraordinary power, being capable of propelling itself and a man four to five miles an hour. It is intended for North Sunderland, in the county of Northumberland, where it will be of considerable benefit to the small farmers of that district, as it can be moved from one farm to another, and thus afford great facilities, by enabling them to thrash their corn in an expeditious manner, when required. Previous to being sent off, the machine was tested, and gave much satisfaction, as it thrashed the corn in a very superior manner, and perfectly clean. The steam engine is not intended to be confined to thrashing, as, by peculiar arrangements, its power may be applied to the drawing of wagons, pumping of water, breaking of stones, &c. at the lime works and collieries in the neighbourhood. It is the property of R. Robson, Esq. of Alnwick. [*Eng. pa.*

HORTICULTURE.

FRUIT TREES.

Salem, N. J. May 16, 1830.

J. S. Skinner, Esq.

As soon as I test an experiment that I have in view respecting fruit trees, I shall communicate to the public, through the medium of your paper, with the following, I have already tested for twenty years, i. e. the prevention of plums and apricots falling off previous to their ripening. Respectfully

Samuel Reeve.

Proprietor of the Salem Nursery, N. J.

RIPENING OF WINE.

Dr. Lardner states that a discovery has lately been made by which the mellowness age gives to wine may be obtained in a very short time by a simple contrivance. Sœmering put four ounces of red Renish wine into a tumbler in winter, its mouth was tied over with a moist bladder; and the tumbler placed in the shade. In eighty-one days the wine was reduced to one half, was in high preservation, had crystals of tarter floating on its surface, and others on its bottom; it was of a darker color than before, but was brighter and finer than ordinary; its smell was stronger and more enticing; its taste, although stronger, more spirituous, and more aromatic, was yet milder, more grateful, and more mellow than ordinary; it was found to contain one half more alcohol than similar wine which had not been so treated in the tumbler. Thus the bladder had permitted the evaporation of water, but had prevented that of alcohol; hence the strength of the wine and the deposition of the acid salts. Sœmering, therefore, proposes that wine should be kept in bottles not corked, but tied over with a soft bladder, in which state it will in twelve months become as mellow as in twelve years in the cask. The shallower the vessel, and the wider its mouth, the sooner will the effects be produced.—These facts have in substance been confirmed by others, who allege, from long experience, that, by closing bottles of wine by means of parchment or bladder instead of corks, we may attain in a few weeks the good effect of many years.

GOLDEN PIPPIN.

Thomas G. Fessenden, Esq.
and Mr. J. B. Russell:

Gentlemen,—I think so highly of the *golden pippin*, and feel so desirous of doing away the impression that they will not keep through the fall, that I send a few of the last from my farm in this place. The trees can be traced back for near a century. Trees imported by my father about twenty-five years since, bear well at Byfield; the fruit I think larger and better than from my old trees; and last week I found the apples from the trees at Byfield perfectly sound and in a proper state for eating. I make no doubt they will remain so quite into June. Try them this day, and tell me plainly how much too far prejudice carries me.

Your obedient servant,

Gorham Parsons.

Brighton, May 18, 1830.

☞ We lost no time in putting the above mentioned apples to the test of taste, and our organs of gustation pronounced their eulogy. We are glad to find that such veteran varieties of fruit are so durable, and are capable of ministering to the salutary enjoyments of several successive generations of their cultivators and admirers. Such of our readers as wish to refer to the celebrated controversy between Judge *Buel*, Col *Pickering*, and others, respecting the durability of particular varieties of fruits, including the golden pippin, will find it in the New England Farmer, vol. iv. pages 253, 262, et seq.

LANDRETHS' NURSERIES.

We are indebted to the politeness of Messrs. D. and C. Landreth, for some very beautiful specimens of the Hyacinth, selected from their collection now in bloom at their extensive nurseries in Federal street. They are believed to be superior to any other ever imported in this country, and these gentlemen are entitled to praise for introducing the finer sorts of this exquisite exotic among us; the bells of some of the flowers measure from four and a half to five inches in circumference.

Their nurseries are particularly attractive at this time; among other rare plants in bloom will be found twelve varieties of the Camellia Japonica—two species of the Chinese Magnolia, and the magnificent Rhododendron Arborea from the mountains of Napal in India.—*Poulson's Am. Daily Adv.*

RURAL ECONOMY.

(From the Boston Centinel.)

FRESH BUTTER.

Messrs. Editors,—You recommend in your last number a *new* mode of preserving butter, and I here send you an *old* and better method, because it is more simple and pure, and *without a particle of salt*, honey or sugar. I say without a particle of salt, *nitric* or *common*.

If all the vessels used be perfectly clean and wiped dry, and the butter *comes quick*, (for butter that is a long time churning is already half spoiled) you have to work out the butter-milk *entirely*, by repeated and unwearied working or kneading it, till you are satisfied that there is not a tea-spoonful of the butter-milk left in a mass of a dozen pounds, then press it into a stone pot, perfectly clean and *dry;* and in this state of purity and compactness, you may carry it to Europe or Asia, and find it at the end of your voyage as sweet as a rose in June, provided you have excluded the air from it by parchment, or white wax, or spermaceti, when put on to it almost cold. The whole philosophy of the operation depends on excluding milk, and water, and air, and preserving the mass in a moderate temperature of warmth; better below 50° than above it. One of our countrymen, who went in a public character to Spain, had butter made at Nauchant Island, and thus managed, and found it perfectly sweet on his arrival.

What a mess must butter and honey make when mixed together. When Isaiah says "*butter and honey shall he eat*," it is an exquisite Asiatic figure to denote a fertile land fragrant with flowers, but not to mix them together in the same dish.

It is remarkable that neither Grecian or Roman writers ever mentioned butter. It does not appear they had any knowledge of the article. It came down to us through the Arabians, and is one evidence more of the authenticity of the Old Testament. Instead of speaking scornfully of the Arabians, as is the manner of some, let us tell our children when they ask for *butter* or *sugar*, that we are indebted to those Mahomedans for both these delicious articles of a good breakfast, as well as for all those figures they use in their ciphering books. BUTTEROPHILUS.

Middlesex, May, 1830.

BIG HEAD IN HORSES.

Hickory Grove, Northampton County, N. C.
J. S. SKINNER, ESQ. *May 17th*, 1830.

I have noticed several essays in your valuable paper, the "American Farmer," on the subject of "*big head in horses*," and as I have never seen any description of this disease, or any cure recommended, I will endeavor to communicate what my limited experience on that subject has taught me. About 12 years ago the disease made its appearance in this neighbourhood, and before a remedy was found out, many losses were sustained, by the death of the horses which were diseased. One of my neighbours lost horses to the value of 6 or 7 thousand dollars, among them some of the best blooded mares and colts—I lost one only, and the first and only one, a brood mare, which had it about that time. Various applications were made to cure it, such as driving in spirits of turpentine by rubbing the parts affected, and holding a red hot iron near the place; burning, bruising, and cutting, were also resorted to, but in every case that I saw, or heard of, the disease terminated in the death of the animal. At length white arsenic was recommended, but by whom it was first discovered, I am ignorant—I had occasion about four years ago to try it on a fine Archy mare, then in foal by Archy—she was affected on both sides of the face, and I succeeded in curing her; she produced a horse colt, whilst she was under the operation of the arsenic—at about two years old the colt was affected on one side of the face, I had recourse to the arsenic, and completely eradicated the disorder, leaving only a slight scar, though the mucus membrane of the nostril was so much injured as to cause a difficulty of breathing through it. The mare was still more affected, as both nostrils were nearly closed, and her head continued to be much larger than before she was taken with the disease, though generally in good order, and occasionally worked. She has, however, produced three fine colts since, none of which has as yet been affected with the big head. I designed to have trained her first colt, but in consequence of the affection of his nostril, I declined the idea. He is now four years old, enjoying fine health, and possessing great vigour as a stallion—I am thus particular in detailing the character of the animals who have been cured, that it may be seen how little horses are affected by the disease after it has been cured. I have known the arsenic exhibited in at least twenty cases, in all of which it effected a cure, and I think I can say, that it is an infallible remedy. I will now endeavor to describe the disease, and the recipe. *Symptoms.*—Loss of appetite, a drooping of the head, and a disinclination to move about—a slight weeping from the eye on the side affected—in a short time a local swelling appears on the side of the face in a direct line between the eye and nostril, which on being pressed hard with the finger causes the animal to wince, and by rubbing it gently with the hand, appears to give ease to him—an enlargement of the jawbone—and a considerable decline in flesh. I have not discovered that the disease is attended with fever; if it is suffered to run long, it causes an affection of the joints—they become puffed, as if inflated with wind, and in a short time those swellings become filled with pus, and ultimately break, and a discharge of purulent matter issues from the joints, and the animal falls, to rise no more, without help. It is supposed to be infectious only in this last state of the disease.

Cure.—As soon as the swelling on the side of the face appears, take a piece of white arsenic about the size of a common field pea, (or about 6 or 8 grains pulverized and wrapped in fine paper, of a size only sufficient to contain it,) make an incision in the skin, immediately over the hard tumour, insert the arsenic, (or the paper containing it,) and with a needle and thread make one suture or stitch, tie the ends of the thread in a *hard-knot*, bleed the horse, and turn him out alone in a good pasture, or if it is cold weather, put him in a stable, removed from other horses, and feed him on light food—in a few days the effects of the arsenic will be discoverable by a considerable swelling of the head, nose and face, which will increase until the power of the arsenic is exhausted—if both sides of the face are operated on at the same time, the head will swell to an enormous size—in about a month, or six weeks, the arsenic will have developed its efficacy by the appearance of a circular piece of skin, and the porous bone of the face which extends as far as the seat of the disease, or the influence of the arsenic on the affected part; this circular development extends as far as the affected part only, and is quite callous and nearly detached from the sound skin, leaving the wholesome flesh in its natural state. In a month or six weeks longer, this circular part becomes entirely detached on its periphery from the sound skin, and adheres to the side of the face by a few slight integuments about its centre, which soon decays, (or they may be cut off,) and the diseased parts drop out in a mass, leaving a hideous wound; then may be seen the porous bone of the face, resembling honeycomb, which soon becomes covered with sound flesh and skin—the wound may be soon healed by using common applications, though I have made use of what we farmers in the country call pot-liquor, as a wash, and anointing the place with an ointment made by bruising the leaves of the common pokeweed, (*phytolacca decandra,*) and extracting the juice by pressure, and stewing it in hogslard, or of the Jamestown weed, or thorn apple, (*datura stramonium,*) prepared in the same way. These applications may be made use of with advantage as soon as it is discovered that the parts begin to separate. If the weather be warm, it may be necessary to anoint the parts with a mixture of common tar and hogslard, or the juice of elder stewed in hogslard, in order to keep away the blow-fly, which will be attracted to the parts by the offensiveness of the scent emitted. It cannot be expected that a horse which has been thus operated upon, will regain the beauty of his head, particularly if he be an old horse, or has been affected on both sides of the face, or the disease has been suffered to run too long before applying the remedy: this is evidenced by the appearance of my mare, I suffered the disease to run too long, because I was fearful that the arsenic might injure the foal, but was induced to risk it, rather than lose the mare—the stallion on the contrary, exhibits the effects of it in but a slight degree. It may be proper to remark, that a less quantity of arsenic will answer for a colt than for an old horse; and that it ought to be inserted as high up on the face as the seat of the disease will admit of; perhaps on the upper edge of the swelled part will answer the same end.

Another remedy has been communicated to me, which is much more simple; and if it be a remedy, certainly possesses great advantages over the one on which I have been treating. I have never known it tried, but I am induced to believe that it is a remedy, both from its analogy to the arsenic, and from the authority from which I derived my information. It is this. Instead of the arsenic, take a half pint of strong ashes, (hickory I suppose,) put them into a tin cup, (of about a pint measure,) smaller at the mouth than at the bottom, say about 1½ inches at the mouth in diameter; fill the cup or pot with water, and let it boil for half an hour, or until the water has been evaporated, or absorbed by the ashes, cord the horse's nose in the usual way, or otherwise confine him, in order that he may be still, and apply the mouth of the cup to the part affected, with the ashes quite hot and nearly dry, having previously covered it with a thin cloth to prevent the ashes from coming in contact with the skin of the horse, and hold it in that position until the heat has subsided, when it may be removed—in a day or two the parts will exhibit a gluey exudation, which will disappear in the course of a week, leaving an inconsiderable sore like a burn, which may be soon cured by treating it as such. It may be necessary in some cases to make the second application. The horse may be used as usual all the time, and when the wound heals up, scarcely any scar will remain.

Respectfully, your most ob't servant,
G. B. L.

INTERNAL IMPROVEMENT.

LUMBER.

An immense quantity of lumber has descended the Susquehanna the present season; more, it is estimated, by one-third, than descended any previous season. The same is said of the lumber trade on the Delaware, and the article may be purchased as low at Philadelphia as at Harrisburg, Middletown or Columbia.

For the last twenty-five years, at least, we have heard that timber was becoming scarce at the head waters of the Susquehanna; and boards, shingles, &c. must, *the ensuing year*, be scarcer and dearer. It turns out, however, that lumber in all its shapes descends the river year after year in increased abundance. Why? Because there is more skill employed in getting the timber out of the forests to the saw mill, and consequently it is delivered there cheaper—because saw mills are placed upon water courses; remote from the main stream, which were formerly considered unfit for navigation, but are now descended by rafts—and because the immense forests of pine stand upon soil of excellent quality, which the settlers are anxious to cultivate. No person can form an accurate idea of the quantity of timber standing in a pine forest, without actually seeing it.—These forests, however, are not exhaustless, and the time will come, albeit that cannot be the case in our day, when they will be exhausted.

Since the Union and Schuylkill canals have been finished, the lumber trade has taken a new direction. A great proportion of the lumber that formerly descended the Susquehanna, run on to tide, and then to Baltimore, Washington, &c. A considerable supply for the adjacent country was purchased at Columbia, Middletown, Harrisburg, and New Cumberland. But Middletown at this time far surpasses all the other points in the amount of her lumber trade. It is said that three hundred houses are to be erected at Pottsville during the ensuing summer, the lumber for which is laid in at Middletown, and conveyed to its destination by the Union and Schuylkill canals. It was formerly a serious matter for farmers in the eastern end of Dauphin, Lebanon or Berks, to build a house, barn, or the most insignificant tenement, because they were obliged to carry the boards and shingles in wagons from ten to forty miles. But since the canals have been in operation, lumber is distributed along the whole line, from Middletown to Lebanon, to Berks and down to the eastern part of Montgomery, and sold at an immense reduction in the cost. The consequence is, *this* country every where exhibits cheering evidences of improvement. Lebanon and Berks have always been anti-canal counties, and a majority of their people yet labour under the apprehension that the canals will answer no good purpose, while they are strongly possessed of the presage that they will be ruined by taxes; when it can be demonstrated by figures and facts, that the price paid for lumber in those counties before the Union Canal was constructed was so much higher than it is now, that the difference, or saving, to the purchasers will be more than sufficient to pay all the taxes that may be assessed upon those counties for canal and rail-road purposes, even assuming the highest estimate of those opposed to the canal and rail-road system to be the true one.

[*Harrisburg Chronicle.*

The following paragraph is extracted from the Lewisburg Journal. Similar notices of improvement are observed in papers from other internal towns in this state, and we should judge the present to be a time of as much general prosperity as Pennsylvania has known for a number of years. We could desire, indeed, to quote grain about 25 per cent. higher:

"This borough has for the last two or three years undergone the most rapid improvement of any along the Susquehanna, possessing no greater advantage for trade or manufactures than it does. Indeed, so great has been the change, that persons who have not visited it for three or four years, on their return universally express their surprise at the number and elegance of the buildings which have been erected. And yet the improvements are not equal to the increase of inhabitants and the business of the place, as will be seen by an advertisement of Messrs. Miller and Evans, two of our most enterprising builders, who wish to employ five or six workmen immediately. Five handsome buildings are now being erected on Market street, together with others in other parts of the town."

INLAND TRADE.

The following articles, with some others not stated, passed Eastward in wagons through the Eastern gate of the Chambersburg Turnpike Road Company, *in one month*, from the 2d of March to the 2d of April, to Baltimore and Philadelphia, of which an account was kept by Jacob Shober, Gatekeeper.

Flour,	bbls.	3,450	Rags,	lbs.	21,000
Whiskey,	do.	364	Feathers,	do.	7,420
Clover seed	bush.	365	Paper,	do.	9,800
Butter,	lbs.	25,007	Iron castings	do.	5,000
Eggs,	doz.	3,415	Blooms	do.	51,400
Hemp,	lbs.	25,500	Axes,	do.	2,325
Wool,	do.	8,000	Other from manufactures,	do.	16,300
Beeswax,	do.	11,400	Glass,	do.	62,000
Hogslard,	do.	6,200			
Bacon,	do.	134,600			

With the exception of the articles of hemp, wool, beeswax, bacon, rags, feathers, glass, the other articles were, it is believed, from Franklin county, and chiefly from Chambersburg and its vicinity; which, also furnished part of the several items excepted—with the exception only of glass. More flour passes, it is believed, through this gate to market in each of the months of December, January, and February, than in March. It is also considered that one third at least of the agricultural products of Franklin county passes to market by the Waynesburg and Emmittsburgh Turnpike road and by Hagerstown.

MAUCH CHUNK CHUTE.

We were the other day forcibly struck with the facility and despatch in putting coal wagons down the Chute, and loading the coal into the boats. We were, therefore, desirous of knowing how many wagons were let down in a day, and were informed that they frequently let down and loaded into boats 200 wagons per day, being more than 300 tons of coal. On calculation, we find, that allowing the Chute to be used only 250 days per year, 75,000 tons of coal can be passed down this single one and loaded into boats: and for our part we see no reason why a dozen of these Chutes may not be made by extending the Rail-road further along the hill, and to supply that number, a back set of tracts for the empty wagons to return on is all that is necessary for the Company to do any amount of business that the market can require from them, and ten times the present demand. It is believed that the Morris Canal to New York, and the Delaware Canal to Philadelphia, will both be finished in two or three months—when we believe none need cry with the pains of cold fingers, occasioned by a want of Lehigh coal.—*Pioneer.*

One day's work at Mauch Chunk, between sunrise and half past four, P. M.

Two hundred and sixty-eight tons of coal quarried at the mines, loaded and brought down the rail-road, nine miles—unloaded from the wagons down the chute and loaded into boats.

The *boats* for this coal *all built* the same day, and within the above mentioned time.

Forty thousand feet of Lumber sawed in one day and night.

The above we find is the average work of each day, throughout the week. We do not profess to be familiar with the business of our seaports, but presume the above is equal to the full loading of a first rate brig in the mercantile service.

We however not only load the vessels, but create the freight, and also build the vessels to carry it, all in the same day.—*Ib.*

LADIES' DEPARTMENT.

To the Ladies who have undertaken to establish a House of Industry in New York.

Ladies:

It is a subject of rejoicing that you have come to the determination to open a House of Industry for the alleviation of the sufferings of a numerous and interesting class of your sex, of whom the greater portion of those who depend for support on their honest industry, are ground to the earth by the inadequacy of the wages they receive for their labours.

The mode of procedure demands your most serious consideration—as it unfortunately often happens in human affairs, that the most disinterested efforts of benevolence, when not regulated by sound judgment, and enlightened views, produce not only a failure of the good proposed, but a mass of positive evil. The result of your labours, whether for good or ill, will altogether depend upon the prices you pay for the work executed for you. The rate of wages, then, ought to be the primary object of your attention, which is the more necessary, as radical and pernicious errors prevail on the subject.

Be assured, that when a society which affords employment to the poor, in winter, or in any other season of distress, gives wages below the proper standard, it produces a serious permanent evil, which is but poorly compensated by the effectuation of a mere temporary good. The price they pay becomes the general standard, thus perniciously and injuriously reducing the rate of compensation, already oppressively low.

The women you employ, indeed every industrious person, ought to receive wages adequate, with proper economy, to pay for their lodgings, and to procure a sufficiency of wholesome food, plain but decent clothing, fuel, candles. soap, &c. That no reasonable person in the nation will deny this position, I will not allow myself to doubt.

With this plain maxim to guide us, let us investigate the subject.

It was the unanimous opinion of a large number of the most respectable and benevolent ladies in Baltimore, assembled a few days since, that an expert seamstress, unencumbered with children, who worked steadily from 6 o'clock in the morning till 10 at night, could not make more than eight or nine muslin shirts per week—and that those who were not expert, or had young children to attend to, could not make more than six. The price paid here, by the proprietors of slop-shops, by the Provident Society, and for government work, is but 12½ cents for each shirt, and for all other articles in the same proportion.

That these women are often unemployed—and are sometimes sick, from insalubrious dwellings, and from scantiness and bad quality of food, may be assumed without danger of cavil or denial,—and six weeks in the year will be admitted to be a very moderate allowance for both these casualties. Their room rent is almost universally 50 cents per week.

With these data, and allowing, for sake of argument, nine shirts per week, at 12½ cents each, let us view the appalling result.

Forty-six weeks, at 1 12½ cts., produce	$51 75
Lodgings at 50 cents, - -	26 00
Remain for food, clothing, fuel, candles, soap, &c. - - - - -	$25 75

or less than half a dollar per week, about 7 cents per day. Now, is it not a national disgrace that in the most flourishing country in the world, such should be the miserable pittance for honest industry? Is it to be wondered at, that some of these poor women are, by poverty and desperation, driven to courses which render them a disgrace to their sex, and a bane and a curse to society?*

When this is the situation of the expert, and of those unburdened with children, how calamitous, how deplorable must be the case of the inexpert, the aged, the infirm, and of the expert who have children to support?

Who can reflect on the extent and intensity of the distress that must necessarily result from thus "grinding the faces of the poor," without the deepest sympathy for the sufferers, and horror at such a state of society!

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* The following extracts from letters written by J. W. Wyman, Esq., a respectable police magistrate of New York, shed strong light on this important subject, and cannot fail to arouse the sympathies and the energies of all who feel an interest in the promotion of private happiness or public morals.

"The evils arising from the inadequate compensation given for most kinds of female labour, are by no means confined to their poverty. It is frequently the case, and my own experience enables me to speak with confidence, that women of this description are obliged to keep their children in the streets, either to beg, or by some light employment to earn a penny through the day; this leads to bad associations and frequently to crime. *Of the children brought before me for pilfering, nine out of ten are those whose fathers are dead, and who live with their mothers, and are employed in this way.* The petty plunder obtained in this way, finds a ready market at some old junk shop, and the avails are in part carried home as the earnings of honest labour.

"The subject is one of great importance in every well-regulated community, and cannot fail to interest every benevolent mind. I mean the inadequate price usually paid for female labour, particularly to poor widows who are burthened with small children. It is a subject which ought to arouse the feelings of every philanthropist: for I have no hesitation in saying, from my own observation, as one of the acting magistrates of this city, that *no inconsiderable portion of female distress and female depravity*, is to be attributed to the *very scanty remuneration they receive for honest industry.*

New York, April 5, 1830.

And yet we have hundreds of persons "clothed in purple and fine linen, and faring sumptuously every day," who cant about the worthlessness of the poor—ascribe their distress to their idleness—and defame and decry those benevolent societies which alleviate their sufferings, and often give them food when they have not a morsel to eat, nor a cent to purchase wherewith to rescue themselves from starvation.

The house of industry in Boston, as I am credibly informed, gives but ten cents for the same kind of shirts. Let us apply the same test to the operations in that quarter.

Forty-six weeks, at 90 cents per week,	$41 40
Lodging (higher there than here,) but say 50 cents, - - - -	26 00
Remain for food, clothing, fuel, candles, soap, &c. - - - -	$15 40

or 30 cents per week—not quite equal to four and a half cents per day!!!

I have heard it said, and even by benevolent men, in justification of this hideous state of things, that these women do not complain—that they are thankful and satisfied, and therefore, that the subject ought not to be agitated. This is a very superficial and erroneous view of the question, and displays a very small degree of intelligence or judgment. "They do not complain." True. It would answer no purpose. If the price were brought down to six cents (as it sometimes is, or I am most egregiously misinformed,) they would accept it, and thankfully too. Their numbers and their wants are so great, and the competition so urgent, that they are wholly at the mercy of their employers, and must accept whatever miserable pittance is offered them, however inadequate to their support.*

Cold-blooded political economists pronounce oracularly, with the most perfect sang froid, that the low rate of wages, however oppressive, is the inevitable consequence of extreme competition—that while this competition continues, a remedy is impossible—that the evil must, therefore, be submitted to—and that it is useless to spend time in an attempt at mitigation.

In this doctrine I cannot agree. I cannot allow myself to believe, that the mass of those by whom these oppressed women are employed, have an idea of the inadequacy of the wages they pay. I feel satisfied, that had they been aware that it is impossible for them to procure for those wages, a sufficiency of the commonest necessaries of life—that they are obliged to make up the deficiency by the contributions of charitable individuals or benevolent societies—or by occasional aid from the overseers of the poor, they would have scorned to reduce the wages so low, particularly those of them who make large fortunes by the ill-paid industry of these ill-fated sufferers. That there may be some who are perfectly aware of the real state of the case, and who, nevertheless, take advantage of the necessities of the women in question, I admit—for there is an infinite diversity in the characters and principles of mankind. But I fondly hope, the number is small; and if the subject attract a degree of attention, commensurate with its importance, public opinion may be brought powerfully to bear on these, and thus "to correct the procedure."

The ladies who have opened a house of industry in Baltimore, actuated by the soundest and most enlightened and benevolent views of the subject, have, to their honour, set a most laudable example, which, I hope and trust, will, in due time, be followed in all our cities, where such institutions are established. Although their resources are as yet very moderate, they have, depending for support on public liberality, raised the price of seamstresses' work; and accordingly they pay 18¾ cents for those coarse muslin shirts,* heretofore made for 12½, and for all other articles in proportion. So far as Baltimore is concerned, (and the reasoning will apply wherever the same course shall be pursued,) this plan will produce as great a harvest of good, and relieve as much real and unmerited distress and suffering, as any plan adopted there for years, with such slender means. Some of the proprietors of slop-shops there have followed the example of the ladies, and it is more than probable, that it will spread generally. "This is a consummation most devoutly to be wished," and will apply a radical remedy to a most enormous evil.

That I may not tire you with too long a homily, I shall conclude with recommending to your attention the following judicious observations from a most respectable writer.

"*While the ordinary rate of wages remains insufficient for*" a decent "*maintenance, no device of benevolent ingenuity will avail to render the condition of the poor independent or truly comfortable.*"

"We ought never to forget, that in alleviating the immediate sufferings of the poor, *we are only palliating, not eradicating the evils of poverty.* We must never forget, that *the low rate of wages is the root of the mischief;* and that unless we can succeed in raising the price of labour, our utmost efforts *will do little towards bettering the condition of the industrious classes.* The distribution of alms, or the introduction of contrivances for the more judicious application of the labourer's earnings, may be highly useful in their way. *But they do not reach the source of the evil.* Something may be done by teaching the poor to lay out their pittance of earnings, more skilfully, and with the smallest waste. But the relief to be afforded by such means, must, at best, be confined within narrow limits, *so long as the ordinary rate of wages remains insufficient for a decent maintenance.*"†

M. C.

Philadelphia, May 11, 1830.

P. S. The following extract of a letter so strongly corroborates all my statements, that, although it has been repeatedly published, I am induced to present it once more to the public.

Extract of a letter from the Rev. Ezra Styles Ely, D. D.

"From intimate acquaintance with many of the industrious poor, for eighteen years past, both in New York and in this city, I am constrained to say, that your remarks concerning the inadequate payment which females receive for their labour, are just, and ought deeply to affect every benevolent person, who has any wish to do justly, and see honest industry suitably rewarded. *A common slave, in the states of Virginia, Tennessee, and Kentucky, is much better compensated for his labour, by his necessary food, clothing, lodging, and medicines, than many respectable mothers and daughters in this city, who apply themselves diligently to their work, two hours for every one occupied by the negro in his master's service.* Your remarks will apply to the folding and stitching of books, to the sewing of carpet rags, to the binding of shoes, * * * no less than to the work done for the army and navy."

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* On the most careful inquiries that I have been able to make, it appears, that the number of women in Boston, New York, Philadelphia, and Baltimore, whose sole dependence is on their industry, amounts to from 18 to 20,000—say 18,000. Of these, about one-third are tayloresses, milliners, mantua-makers, colourists, attendants in shops, seamstresses who work in families, nurses, whitewashers, &c., who are, in general, tolerably well paid. The remainder are seamstresses who take in work at their own lodging, spoolers, shoebinders, &c. &c., whose cases fall within the description in the text.

* The Female Hospitable Society of this city, with but moderate support, has for 20 years never paid less than 18¾ cents for these shirts.

† Barton's "Enquiry into the causes of the progressive depreciation of agricultural labour in modern times, with suggestions for a remedy:"—*London*, 1820.

MISCELLANEOUS.

New Discoveries in Medicine.

The reports of the Transatlantic Physicians of the superior efficacy of the bladder podded Lobelia herb (*Lobelia Inflata*) in cases of asthma and chronic cough, or difficulty of breathing, we are happy to find, have been fully confirmed in this country. Dr. Andrews, an eminent physician of Glasgow, in a letter published in the *Glasgow Medical Journal*, states that he has found no medicine so effectual in allaying asthma, and clearing the air vessels of viscid phlegm, as the Lobelia Inflata. Mr. Gordon, of Hull, has published several cases of spasmodic asthma, in which the etherial tincture of it acted like a charm—the first dose affording great facility of breathing in a few minutes. Dr. Reece, in his late treatise on the peculiar anti-asthmatic properties of this herb, clearly shews, by reasoning and experience, that from its quieting effect on the par vagum (the part of the nervous system evidently the seat of asthma,) that it is the most efficacious remedy that has been discovered for asthma and winter cough. For the first discovery of the mild but efficacious tonic properties of the round-leaf Cornel we are also indebted to the Transatlantic Physicians. This stomachic and constitutional tonic medicine, Dr. Robinson, in his valuable practical treatise on the proper diet, &c. of elderly and weakly subjects, and also Professor Ives and others, from its uniform grateful and strengthening effects on the stomach, &c. &c., termed the natural tonic of the human frame. The last edition of Dr. Robinson's treatise on the round-leaf Cornel contains several cases of local and general debility, in which the remedy fully succeeded in this country, after the Peruvian Bark, the Sulphate of Quinine, and other tonic medicines had failed. [*Eng. pa.*

THE FARMER.

Baltimore, Friday, May 28, 1830.

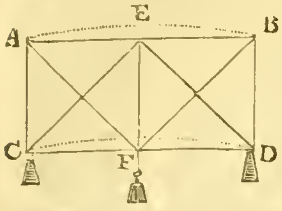
The Jackson Bridge.—We have before us a pamphlet containing a description of a system of bridge-building to which the above designation has been given by its projector, Lt. Col. Long, of the U. S. Engineers, and of which notice has already been taken in two former numbers of this paper.

The pamphlet also contains a variety of "directions to bridge builders," agreeably to which the application of the system, and the construction of bridges in conformity thereto, is greatly facilitated. The appropriate dimensions of the several timbers suitable for the construction of bridges of all sizes or spans, varying from 60 feet to 300 feet, are exhibited in two tables, which appear to have been the result of careful and laborious calculations. Our attention has been particularly attracted by a method therein explained, for ascertaining the specific gravity and comparative strength of the different kinds of timber applicable in the construction of bridges; also, by a very remarkable property, peculiar as we believe to this system of bridge-building. The property adverted to, is, that the main supports or *truss-frames* of the bridge are not subjected to any greater stress or strain, by the passage of the heaviest loads, than that exerted upon the bridge without any load at all upon it.

This singular property is explained in the following manner, viz. (pages 21 and 22.)

"The principles aimed at in the construction of this bridge, are such, that the strain to which the truss frames are subjected, by the heaviest load that is admissible upon the bridge, is no greater than that exerted upon it without any load at all. Paradoxical as this may appear, it is nevertheless demonstrably the fact, with respect to all parts of the bridge, except the arch braces, and those parts merely which are in contact with the sleepers or bolsters, upon which the bridge is sustained.

"In demonstration of the truth of this proposition, we have only to inspect the annexed diagram, which may be regarded as representing one of the truss-frames, and in which AB represents the upper, and CD the lower string; AC, EF, and BD three posts, EC and ED the main braces; and FA and FB, the counter braces. Suppose the frame deprived of the counter braces, and the strings occupying the position of the curved dotted lines, let a weight G be suspended at F, heavy enough to depress the frame to the straight line AB and CD, as represented in the figure.—Let the counter braces FA and FB be now inserted; after which let the weight G be removed.—It is obvious that the strings AB and CD will still retain their straight direction, and the addition of the weight will have no other effect upon the truss-frame, than merely to relieve the counter braces of their action, the stress or strain upon the truss-frame remaining the same, whether the weight is sustained by it or not.



"If keys or wedges be applied at A and B, over the heads of the counter-braces, and driven in such a manner as to communicate an appropriate thrust from A and B, towards F, we have the strain upon the truss frame completely exemplified, without the use of the weight.

"However the number of spaces in the truss-frame may be multiplied, if the additions be made equally on both sides of the centre, or in both directions from E and F, the same system of action will be communicated to all parts of the truss-frame situated between the abutments of the bridge."

In a letter addressed by the patentee to the Editor of the Journal of the Franklin Institute, the following statements, the accuracy of which is unquestionable, are made in reference to this system.

"The only bridge hitherto constructed on this plan, has lately been built on the Washington road, about 2¼ miles from Baltimore, at its intersection with the Baltimore and Ohio Rail-road, and at an elevation of 40 feet above the latter. The length or span of the bridge is 109 feet, its width from out to out 24 feet, and its height from bottom to top of its posts is 15⅝ feet. It is supported by a double truss frame on each side, furnished with arch-braces beneath only; the upper arch-braces not being required in a bridge of that length. The exterior string pieces of each string are only six inches square, and the interior six by eight inches. The posts at the ends, and at the centre of the bridge, as also the arch-braces, are of the size last mentioned. The other posts, and the main braces, are six inches square. The counter and lateral braces, are only five inches square. The whole of the timber, except the keys, is white pine, with no other seasoning than what it might have acquired in six weeks, during which time the work was in progress, having been framed and raised in that time by six workmen only. Independently of the abutments and exterior covering of the bridge, its cost, inclusive of materials and workmanship of every kind, was only eleven hundred and forty-five dollars.

"However slender the materials of which the bridge is composed, and however deficient in strength it may appear, it is crossed daily by stages at full speed, and has actually sustained about eighty beeves driven across at once, in close gang, without the least apparent yielding in the truss-frames.

"Agreeably to the most approved rules for computing the strength of similar structures, it will sustain on every square foot of its floor, in addition to its own weight, at least 120 pounds, or equally distributed over the entire surface of its floor, about one hundred and ten tons weight."

We shall here take occasion to recommend the Jackson Bridge, as a more correct, substantial, efficient and economical specimen of bridge architecture, than has ever before come under our observation, and as worthy of the particular consideration of the public.

☞ Key West Cotton.—We have been favoured by R. Fitzpatrick, Esq. of Key West, with some specimens of cotton grown on that island. They are from a plant of the Long Staple or Sea island, carried from the neighborhood of Tallahassee, Florida, and a native plant which grows wild on that and others of the Florida Keys. The Long Staple cotton appears to have changed its character considerably with its change of soil and climate; having become quite yellow, or rather of a nankeen color, though the staple is not much affected. The native cotton, which is abundant on these Keys, it is apprehended cannot be profitably cultivated, or even gathered for market in the present state of the cotton trade. It is very short, of mixed nankeen and dirty white color, and would be exceedingly difficult to *gin*, in consequence of the very small seed. The Long Staple is considered very inferior to common Sea island; but if it could be preserved from deterioration in color, or if a more perfect nankeen colour could be obtained, its cultivation might become an object worthy of attention. Our correspondent who favored us with these specimens, states a fact which may be worthy of the attention of naturalists. The Long Staple cotton plant, the seed of which was carried from Tallahassee, at first produced perfectly *white* cotton; and in the course of three years it gradually assumed the nankeen color and fineness of the native cotton, and at this time, (March 25,) there is not a single boll of white cotton on the stalk, which is large and bears constantly and abundantly. But the fact which we deem most interesting to the naturalist is this: A large plant of the native cotton stood within twenty feet of the Long Staple plant, and the change of color and fineness was first observed on the side next to the native plant. It is no uncommon occurrence for the *seed* of plants thus growing in the neighborhood of inferior plants of the same species, to produce a deteriorated plant; but we believe it is not common for the fruit of the original plant to be thus affected. Even in this case, the change might have been the effect of the change of soil and climate, the circumstances of the near neighborhood of the native plant notwithstanding.

☞ Agricultural Institute.—We observe with pleasure, that Anthony Morris, Esq. is about commencing his long contemplated institution for agricultural education. The school of the Rev. Wm. Chaderton, having been removed from Burlington, N. J. to Bolton farm, Bucks county, Pa. Mr. Morris, has connected his agricultural school with that seminary, and the whole is now to be styled a "*Classical, English and Agricultural Institute.*" The agricultural department, however, will have no further connexion with the course of instruction of the other departments, than, as it will furnish to such of the students in them as may wish to avail of it a substitution of rural and useful employments for the undisciplined exercises which usually occupy the intervals of study; while these departments will afford to the agricultural students an opportunity of acquiring such portions of a liberal education as may be desired. The plan of this agricultural school is upon the system of Emanuel de Fellenberg, whose institution at Hoffwyl, in Switzerland, is so justly celebrated, and which was described in the American Farmer, vol. 9, pages 25, 34, 50.

TERMS.

1. It is required that the age of pupils at entrance should not exceed twelve years.

2. The charge for the classical and English branches, boarding, washing, and mending of clothes, is $210 a year for each pupil, payable semi-annually in advance.

3. The charge for the agricultural department, each pupil, $10 a quarter. For the French language. do. Spanish, do.

4. Books and stationary, and all other incidental expenses, will form an additional charge.

5. Each boy, at entrance, must bring with him a small bedstead and mattress, with bed clothes and towels.

6. The use of pocket money will not be allowed the boys in this Institution.

7. There will be two vacations in the course of the year, one of a fortnight's duration, the other of four weeks; the former to commence on the first day of April, the latter on the first day of September, except either of those days should happen to fall on a Sunday, in which case the vacation will commence a day later.

Letters will be addressed, postage paid, to the Rev. *William Chaderton*, P. O. Bristol, Pennsylvania.

LATEST FOREIGN NEWS.

By the packet ship Canada, advices have been received at New York from Liverpool to the 23d April. There is nothing of much importance, political or commercial, by this arrival. The demand for goods was good in the manufacturing districts at a small advance—Labor had also advanced in the price.

Melancholy and fatal Shipwreck.—It is with the greatest regret, says the Liverpool Times of the 22d, we have to communicate the particulars of one of the most fatal shipwrecks that has occurred on the coast of this country for several years. On Friday night last, the Newry, Captain Crosbie, from the port of Newry, bound for Quebec, with about 400 passengers, ran on the rocks at Portlinclineon, near Bardsey, in Carnarvon Bay, and was dashed to pieces in a few hours, *two hundred of the passengers perishing in the wreck*. A considerable part of the passengers were below when she struck, and such was the violence of the shock, that the ladders between the decks were knocked away, and the ship filling with water every soul below perished. The captain, with about half the passengers succeeded in reaching the shore. They were all in the most wretched condition, many of them having lost every thing they possessed in the world. A passenger just arrived from Portlinclineon, states that the ship had gone to pieces, and that the shore was covered with dead bodies.

It is said that France contemplates the occupation of Tripoli and Tunis, as well as that of Algiers, and that the matter has been arranged between the powers having an interest in the Mediterranean. It is also said that the Pacha of Egypt has entered into an alliance with the French. The preparations are continued, and the expedition is expected to sail at the latter end of this month or the beginning of the next. The fleet, it is said, will consist of 11 ships of the line, 24 frigates, 35 brigs, 18 armed transports, 12 corvettes and other smaller vessels, making a total of 121 armed vessels of all sizes. Among these are 8 steamers, a kind of force as yet new to warfare.

Germany.—On the 29th ult. the Grand Duke of Baden died. The succession of his son, who it is said, is ineligible to the throne on account of his being born of a subject, is contested by the King of Bavaria. It is anticipated that a war will be the result, and that some of the neighbouring princes will take part in it.

Prince Leopold.—His Royal Highness has finally consented to put on the royal purple. According to the arrangement made with England, France, and Russia, he is to receive about £200,000 annually from the three powers, for the purpose of enabling him to put the government of Greece on a proper footing, and to meet its financial engagements.

Russia and Turkey.—The Austrian Observer announces, after intelligence of March 10, from Constantinople, that in consequence of the first instalment of the idemnity to Russian merchants having been paid, the 6th article of the treaty relative to Servia, executed, and Giurdzevo evacuated by the Turks, the Russian army have left Adrianople, Kirklisse, Lule Burgas, Midia, Iniada, and other places and delivered them up to the Porte. It further adds, that the Turkish government are prepared to pay the second instalment according to the treaty; the Russian troops are making preparations to evacuate the whole country, from the Balkan to the sea, as far as the gulf of Bourgas, and to withdraw into Bulgaria and Gobrudscha.—Part of the Russian squadron have sailed for Malta.

Pera, March 11.—Thirty horses laden with money, left this place yesterday for Bourgas, carrying four hundred thousand ducats, as the second instalment of the sum stipulated by the treaty of Adrianople for the indemnity of the Russian subjects Many of the exiled Armenian families returned hither last week, with some reason to regret their haste, as provisions are very dear, and their poverty is great. Even during the blockade of the Dardanelles provisions (except bread) were never so dear as at this moment; so that families in good circumstances are embarrassed.—To this is to be added that a new tax is in contemplation, by which some thousand piastres are to be paid monthly on every oven for permission to bake and sell bread.

Tobacco.—On the motion of the Chancellor of the Exchequer, a resolution, for the repeal of the 12th of Charles II, and 36th of George III, prohibiting the culture of tobacco, and permitting it in every part of Great Britain and Ireland, on the payment of certain duties, was agreed to.

Liverpool, April 12.

Cotton.—The import this week reaches 20,674 bags, and the sales are 13,580 bags, at rather higher prices for Brazil, and at very steady rates for other descriptions. The Sea Islands, &c. sold by auction, went off at full prices, viz:—650 Sea Islands, at 13½d. to 17¾d. 370 stained do at 6¾d to 11¾d; 5,400 Boweds, at 6¾d to 7½d; 1660 Orleans, at 6¾d to 8d; 730 Alabamas, Mobiles, &c. at 6 7-8d to 7¾d.

A few casks Carolina rice have been disposed of at 16s.

April 22.

The sales of the week are 8000 bags, of which 1400 were sold, on Friday last by public auction, namely, 600 Sea Island, at 13½d. to 17¼d. per lb.; 350 Stained Sea Island, at 6¾d. to 11¼d.; 200 Demerara, at 8 7-8d. to 10d.; 250 Macaio, at 7 5-8d.; and three bales of New South cotton from Sea Island seed at 10d. to 11¼d. per lb. Prices have declined 1-8d. per lb. The import of the week is 37,100 bags, namely. 24,000 American, 2,800 Brazil, 3,300 Egyptian, 500 Demerara and West India, and 6,500 Surat.

Liverpool Corn Exchange.—*April* 20.

The depressed state of the London and some of the provincial corn markets caused the trade here to remain, throughout the whole of the past week, in a very dull state, and it was difficult to make sales of wheat even at a decline of 2d to 3d per bushel. The foreign wheat is further reduced 1s. and on oats 1s 6d per quarter, but no alteration on other articles.—There is an arrival of about 9000 bbls. of American flour this week; one or two small parcels have been sold for export at 29s per bbl. but there has been little or no inquiry on speculation.

London Corn Exchange.—*April* 19.

The past week supplies of most kinds of Grain were considerable, and there was a good return of flour. There being still a great scarcity of select supplies of wheat, such obtained the rates of Monday last; but other qualities are very heavy in disposal, and full 2s per quarter cheaper. The flour trade remains extremely slack.

Liverpool Letter, April 23.—Cotton dull and arrivals large—and in some descriptions have declined 1-8 per lb. Flour rather dull at 28s to 28s 6d.

Prices Current in Boston, May 21.

Apples, best, bbl. 2.25 a 3.00. *Beans*, white, bushel .87 a 1.12. *Beef*, mess, bbl. 9.00 a —— cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.12 a 5.25; Genesee, 5.12 a 5.25; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .53 a 55; Rye, .65 a .67; Barley .67; Oats .35 a .40. *Hogs'-Lard*, 1st sort, new, lb. .7 a .8. *Pork*, clear, bbl, 16 a 17; Navy, mess, 12.25 a 12.75; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, —— Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel --- *Wool*, Merino, full blood, washed, .45 a 60; do. do unwashed, .25 a .40; do. three-fourths, washed, .37 *a* .45, do. half blood, .35 *a* .38; do. quarter, washed, .30 *a* .33; Native, washed .30 a .33; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, May 22.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .11; Alabama, .9 a .12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.81¼ a 4.87½; Canal 4.87½ a 5.12½; Balt. Howard st. 5. a 5.12½ Richmond city mills, —— country, 4.87½ a ——Alexand'a, 4.75 a 5. Fredericksburg 4.75 a —— Petersburg, 4.75 a ——; Rye Flour, 3.12½ a 3.25; Indian Meal, per bbl. 2.50 a —— per hd 12.25 a 12.50. *Grain*, Wheat, North, 1.00 a 1.03; Vir. 84 a 90; Rye, North, 60 a 62½; Corn, Yel. Nor. .53 a 54; Barley, — a — Oats, South and North, .30 a .37½; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 9.75; prime 5.50 a 6.25; cargo 4.50 a —— Butter, N. York, — a --- shipping, .6 a 11; Lard, .6¾ a .7; Pork, mess 13.00 a 13.50; prime 9.00 a 9.50.

Prices Current in Philadelphia, May 24.

Bees-wax, yellow .21 a .22; *Beans*, bushel $.85 a 1.00; *Beef*, mess 10.00 a —— prime 8 a 9, cargo 7; *Butter*, No. 1, 6 a 7, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12; Upland 10. a .11½, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 4.75; fine, 4.25 a —— Rye 3.25 a —— Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat .99 a 1.00 Rye 48 a 52, Corn l. c. white, .36 a .37, l. c. yellow, 38½ a .40, u. c. round, 43 a 44; Oats .28 a .35; Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia 9 a 9½, Western .9 a .9½; *Hemp*, 210 a 220; *Lard*, .5 a .7; *Oil*, linseed, 72 a —; *Pork*, mess, 13.00 a ——, prime 11.50 a —; cargo 10. *Rice*, 2.25 a 2.50; *Tobacco*, Kentucky .4 a .7, Vir. .4 a .5½. *Wool*, common washed lb. .24 a .30, half blood .28 a 33, three quarters blood .32 a .34, full blood 35 a .40; unwashed, generally 6 cents less, according to quality. &c. &c.

IMPROVED DURHAM SHORT HORNED CATTLE.

Mr. Powel's Stock of High Bred Short Horns, consisting of sixty males and females, either imported or bred by him, will be offered for sale at Powelton, near Philadelphia, on Wednesday, 16th of June, at 10 o'clock. These animals *have never been offered for sale, nor would they be sold if the owner were not about to leave America for some time.* WILLIAM HUGHS.

AGRICULTURAL IMPLEMENTS.

The subscriber has on hand a supply of Grass and Cradle Scythes, Scythe Sneeds, Scythe Rifles, and Stones, and Grain Cradles; Robbins' celebrated Corn Planter, which is very useful for planting various kinds of seeds, such as Mangel Wurzel, Peas, &c. &c. He has also on hand Wheat Fans, which he can warrant with confidence, and likewise his Patent Cylindrical Straw Cutters, which has never been equalled in any country; with a general assortment of Farming Implements and Garden Seeds, all of which are good of their kind, and such as he hopes will merit the continuance of that liberal patronage which he has heretofore received. JONATHAN S. EASTMAN,
No. 36 West Pratt street.

ALMANAC.

1830. May—June.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 29	4	41	7	19	14	38	0	42
Sunday,...... 30	4	40	7	20	14	40	1	17
Monday,..... 31	4	40	7	20	14	40	1	53
Tuesday,.... 1	4	40	7	20	14	40	2	22
Wednesday, 2	4	39	7	21	14	42	2	53
Thursday,... 3	4	39	7	21	14	42	3	25
Friday,....... 4	4	38	7	22	14	44	3	58

Moon—First Quarter, 29d, 2h. 29m. Even,

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—We have no change to notice in any of the staples of the market. A considerable falling off in the receipts of Howard street flour has taken place, which it is expected will at least tend to the support of present prices. A few hundred head of beef cattle have arrived from Ohio, but we have heard of no sales this week above our quotation. Last week a few first rate cattle were sold at $5.50; but we cannot hear that that price has been obtained this week.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 18.00.—Fine yellow, 20.00 a 25.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 352 hhds Maryland and 61 hhds Ohio, 61 hhds Ken. 3 hhds Penn. and 3 hhds Vir. total 480 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard-st. 4.68¾ *a* 4.75—city mills, 4.62½ *a* 4.75; Susquehanna, 4.62½; Corn Meal, bbl. 2.25—Grain; best red wheat, .90 *a* .95; best white do. .95 *a* 1·00, ordinary to good, 75 *a* 85--Corn, white, .35 *a* .36; yellow .37 *a* .38—Rye, .48 *a* .50;—Oats, .30 *a* .31; Beans, .90 *a* 1.00—Peas, .65—Clover seed, 3.75 *a* 4.—Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, — *a* ——Flaxseed, 1.00 *a* ——Cotton, Vir. .9¼ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .21 *a* .——; in bbls. 23 *a* 23½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 130 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 3.00 *a* 4.50 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.75 *a* 4.00—Bacon, hams, Balt. cured, .9 *a* .10—Feathers, .31 *a* 32—Plaster Paris, cargo price per ton, 3.75 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 5.00 *a* 5.25—Pine Wood, by the vessel load, 2.00 *a* 2.50--Oak, 3.00 *a* 3.25—Hickory, 4.00 *a* 4.25.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy.

AGRICULTURE.

Mr. Powel's Stock of Improved DURHAM SHORT HORNED CATTLE,

Imported, or bred by him, will be offered for sale, on Wednesday the 16th of June inst. at 10 o'clock, at Powelton, on the Schuylkill, opposite to Philadelphia.

CATALOGUE AND PEDIGREES

Of Improved Durham Short Horned Cattle, selected expressly for Dairy purposes, by Mr. Coates, the keeper of the Herd Book, and one of the oldest and most celebrated breeders in Great Britain, to whom a standing order had been given to obtain the best Animals, and without limitation as to price, when they could be procured from Mr. Whitaker's fold.

[The following animals can be traced in the Herd Book, except Nos. 15 and 19.]

MALCOLM.

Imported in 1825, calved in 1823, (bred by J. Whitaker, Esq.) got by Enchanter, dam Western Lady,* by *Western Comet;* g. d. by Western Comet; gr. g. d. by Western Comet; gr. gr. g. d. by Western Comet; gr. gr. gr. g. d. Haughton.

Enchanter, light grizzle, (bred by Mr. T. Bates) got by His Grace, dam Fairy, (bred by Mr. Hustler) by Duke; g. d. *Old Daisy*† by *Favourite,* the sire of Comet; gr. g. d. by Punch; gr. gr. g. d. by *Hubback.*

Western Comet (bred by Mr. Charge) got by Mr. C. Colling's Major, dam Gentle Kitty, by Mr. Charge's Grey Bull; g. d. by *Favourite.*

Hubback, calved in 1777 (bred by Mr. John Hunter,) got by Snowden's Bull, dam (from the stock of Sir James Pennyman, and these from the stock of Sir William St. Quintin, of Scampston) by a bull of Mr. Banks of Hurworth; g. d. bought of Mr. Stephenson of Ketton.

His Grace (bred by Mr. Bates,) got by Ketton the Second, dam *Duchess* the Second, by Ketton the First; g. d. *Duchess*‡ the First bred by Mr. C. Colling) by *Comet;* gr. g. d. by *Favourite;* gr. gr. g. d. by Daisy Bull; gr. gr. gr. g. d. by *Favourite;* gr. gr. gr. gr. g. d. by *Hubback,* gr. gr. gr. gr. gr. g. d. by *James Brown's Red Bull.*

Duke, by *Comet,* dam *Duchess* by *Favourite;* g. d. by *Daisy;* gr. g. d. by *Favourite;* gr. gr. g. d. by *Hubback,* gr. gr. gr. g. d. by *James Brown's Red Bull.*

Favourite, the sire of Comet, by Bolingbroke, dam *Phœnix* by *Foljambe;* g. d. *Favourite,* by R. Alcock's Bull; gr. g. d. by Smith's Bull; gr. gr. g. d. by Jolly's bull.

Punch, (bred by Mr. R. Colling) got by Broken Horn; dam by Broken Horn; g. d. bred by Mr. Best.

Major, (bred by Mr. C. Colling) got by Comet, dam *Lady,* by grandson of Bolingbroke; g. d. *Phœnix* by *Foljambe;* gr. g. d. *Favourite* (bred by Mr. Maynard) by R. Alcock's Bull.

Grey Bull, (bred by Mr. Charge) got by *Favourite,* dam Fleck'd Lady, by Young Bartle; g. d. First Lady, by Bartle; gr. g. d. Old Simmon, descended from the *Studley Bull.*

Snowden's Bull, (bred by Mr. George Snowden) got by Mr. William Robson's Bull (bred by Mr. Waistell, near Darlington) dam Barforth.

William Robson's Bull (or Waistell's Bull) got by Mr. James Masterman's Bull.

James Masterman's Bull (bred by Mr. Walker) got by the *Studley Bull.*

Ketton the Second, got by Ketton the First, dam by grandson of Favourite; g. d. by Mr. James Brown's Red Bull.

Ketton the First, got by *Favourite,* d. (g. d. of *Old Duchess*) by the Daisy Bull (by *Favourite*) g. d. by *Favourite;* gr. g. d. by *Hubback;* gr. gr. g. d. by Mr. James Brown's Red Bull.

Comet, (sold for 1000 guineas) red and white roan, calved in 1804 (bred by Mr. C. Colling) got by Favourite, dam Young Phœnix, by *Favourite;* g. d. Phœnix by Foljambe; gr. g. d. *Favourite,* (bred by Mr. Maynard) by Mr. R. Alcock's bull; gr. gr. g. d. by Mr. Jacob Smith's bull; gr. gr. gr. g. d. by Mr. Jolly's bull.

James Brown's Red Bull (bred by Mr. John Thomson of Girlington Hall) got by Mr. William Barker's bull.

Daisy Bull (bred by Mr. C. Colling) got by *Favourite,* dam by *Punch;* g. d. by *Hubback.*

Bolingbroke, red and white, calved Nov. 12, 1788 (bred by Mr. Charles Colling) got by *Foljambe,* dam Young Strawberry (bred by Mr. Maynard) by Dalton Duke; g. d. *Favourite* (bred by Mr. Maynard) by Mr. R. Alcock's bull; gr. g. d. by Mr. Jacob Smith's bull; gr. gr. g. d. by Jolly's bull.

Foljambe, white with a few rod spots, calved in 1787 (bred by C. Colling) got by Richard Barker's bull, dam Haughton, the gr. gr. gr. gr. gr. g. d. of Malcolm (bred by Mr. Alexander Hall) by Hubback; g. d. by a bull of Charles Colling; gr. g. d. by Waistell's bull; gr. gr. g. d. Tripes, bred by C. Pickering.

R. Alcock's bull, bred by Jackson.

Broken Horn, red roan, calved in 1787 (bred by Mr R Colling,) got by *Hubback,* dam by *Hubback;* g. d. bred by Mr. Watson.

Grandson of Bolingbroke (bred by C. Colling) got by O'Callaghan's Son of Bolingbroke, dam Old Johanna, by Colling's Lame Bull.

Bartle, (bred by Mr. Charge) got by Dalton Duke, dam descended from the *Studley White Bull.*

William Barker's Bull, yellow, red, and white, got by Lakeland's son of the *Studley Bull.*

Dalton Duke, red and white (bred by Mr. Charge) got by Mr. W. Dobson's bull, dam by the *Studley Bull.*

Richard Barker's Bull, sire of *Foljambe,* calved in 1784, got by Mr. Hill's red bull, dam by a son of Lakeland's bull. Lakeland's bull by the *Studley Bull.*

O'Callaghan's Son of Bolingbroke, red and white, got by Bolingbroke, dam a red poll'd Galloway cow.

Lame Bull (bred by Mr. George Best,) got by James Brown's White Bull.

Hill's Red Bull, got by brother of Dalton Duke, dam red cow.

James Brown's White Bull, got by Dalton Duke.

No. 1.—VOLANTE, 5 years, red and white—Imported in July, 1826, (bred by J. Whitaker, Esq.) got by Frederick, dam Viola,* by His Grace; g. d. Venus,† (bred by Mr. Charge) by Charles Colling's Major; gr. g. d. Venus by Grey bull; gr. gr. g. d. by *Favourite.*

Frederick, roan, (bred by Mr. Charge) got by Hulton, dam Orbit by Comet; g. d. Splendor by Comet; gr. g. d. Flecked Twin by Major; gr. gr. g. d. Red Simmon by Favourite; gr. gr. gr. g. d. Flecked Simmon by Bartle; gr. gr. gr. gr. g. d. Old Simmon (bred by Mr. Charge) descended from the *Studley White Bull.*

His Grace (bred by Mr. Bates) got by Ketton the Second, dam *Duchess* the Second, by Ketton the First, g. d. *Duchess* the First (bred by C. Colling, by *Comet*; gr. g. d. by *Favourite;* gr. gr. g. d. by Daisy Bull; gr. gr. gr. g. d. by *Favourite;* gr. gr. gr. gr. g. d. by *Hubback;* gr. gr. gr. gr. gr. g. d. by *James Brown's Red Bull.*

Major (bred by Mr. C. Colling) got by Comet, dam *Lady,* by Grandson of Bolingbroke; g. d. *Phœnix* by *Foljambe*; gr. g. d. *Favourite* (bred by Mr. Meynard) by R. Alcock's Bull.

Grey Bull (bred by Mr. Charge) got by *Favourite,* dam Fleck'd Lady, by Young Bartle; g. d. First Lady, by Bartle; gr. g. d. Old Simmon, descended from the *Studley Bull.*

Favourite, the sire of Comet, by Bolingbroke, dam *Phœnix* by *Foljambe;* g. d. *Favourite,* by R. Alcock's Bull; gr. g. d. by Smith's Bull; gr. gr. g. d. by Jolly's Bull.

See Herd Book for Pedigrees of

Hulton, the grandsire,
Comet, the gr. g. sire, and gr. gr. g. sire,
Major, the gr. gr. gr. g. sire,
Favourite, the gr. gr. gr. gr. g. sire,
Bartle, the gr. gr. gr. gr. gr. g. sire,
} of Volante.

No. 2.—ANNABELLA, 6 years, Light Roan—Imported in July, 1826, got by Peter (bred by Mr. Booth) dam Attraction (bred by Col. Trotter) by Pyramus; g. d. Aurora by Comet, gr. g. d. Marcella by son of *Favourite;* gr. gr. g. d. by son of Favourite; gr. gr. gr. g. d. by Hollon.

Peter, (bred by Mr. Booth) got by R. Colling's Pilot, dam by Marshal Beresford; g. d. by Shakspeare; gr. g. d. by Old Easby; gr. gr g. by Suwarrow.

Pyramus, (bred by Col. Trotter) got by *Comet,* dam Anna Maria, by grandson of Favourite; g. d. Strawberry by son of Favourite; gr. g. d. Hollon.

Comet.

Favourite.

Pilot, red and white, calved in 1817 or 18, (bred by Mr. R. Colling) got by Major; dam Red Rose by Favourite; g. d. by Punch; gr. g. d. by Foljambe; gr. gr. g. d. by Hubback.

Marshal Beresford, (bred by Major Bower, got by Comet, dam *Daisy;* (bred by Mr. C. Colling) g. d. *Old Daisy;* gr. g. d. by Punch; gr. gr. g. d. by Hubback.

Shakspeare, (bred by Mr. Booth) got by Easby; dam by Mr. Colling's Suwarrow; g. d. by Mr Booth's Son of the Twin Brother of Ben; gr. g. d. by Twin Brother of Ben.

Easy, roan, (bred by Mr. Booth) got by Mr. Colling's Suwarrow, dam Fareholme, by Mr. Booth's Son of the Twin Brother of Ben; g. d. by Twin Brother of Ben, gr. g. d. by Twin Brother of Ben.

Suwarrow.
Major.
Wellington.
Punch.
Hubback.
Twin Brother of Ben.
Ben.
Snowden's bull, the sire of Hubback (bred by Mr. George Snowden) got by Mr. William Robson's bull.
Robson's bull by Masterman's bull.
} See Herd Book.

No. 3.—STATELY.—Nine years, white—Imported in 1822, (bred by Mr. Wetherell) got by North Star, dam Laura by Denton; g. d. Selina, by Wellington; gr. g. d. by Danby.

North Star, roan, (bred by Mr. Wetherell) got by *Comet,* dam Lady (bred by Mr. Spours) by Baronet bred by Mr. Mason;) g. d. by Cripple; gr. g. d. by Irishman.

Denton (bred by Mr. Witherell,) got by *Comet,* dam Young Red Rose, by St. John; g. d. by Trunnell; gr. g. d. by Dandy.

Wellington, (bred by Mr. Wetherell) got by St. John, dam by Trunnela; g. d. by Danby.

Danby (bred by Mr. Wetherell) got by Paddock, dam by White bull.

Comet.

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* Western Lady gave 28 quarts per day.

† Old Daisy gave 32 quarts per day.

‡ Mr. C. Colling remarked "the Duchess and Daisy tribes were all good milkers."—*Berry's pamphlet.*

* Viola took the prize at Otley Show, England.

† Venus, when sixteen years old, gave 26 quarts per day. (*See the Rev. Henry Berry's Pamphlet.*)

Baronet, roan, got by Chilton, dam Lydia by Favourite; g. d. Nell by Mr. Mason's white bull; gr. g. d. Fortune (bred by Mr. C. Colling) by Bolingbroke; gr. gr. g. d. by Foljambe; gr. gr. gr. g.d. by Hubback; gr. gr. gr. gr. g. bred by Mr. Maynard.

Cripple, red and white, (bred by Mr. Mason) got by Irishman, dam Fortune, by Bolingbroke; g. d. by *Foljambe;* gr. g. d. by *Hubback* gr. gr. g. d. bred by Mr. Maynard.

Irishman, (bred by Mr. Mason) got by Styford, dam Fortune (bred by Mr. C. Colling) by Bolingbroke; g. d. by *Foljambe;* gr. g. d. by *Hubback;* gr. gr. g. d. bred by Mr. Maynard.

St. John, roan (bred by Mr. Mason) got by *Favourite;* dam Fortune, (bred by Mr. C. Colling) by Bolingbroke; g. d. by Foljambe, gr. g. d. by Hubback, gr. gr. g. d bred by Mr. Maynard.

Trunnell, (bred by Mr. Mason) got by *Favourite*, dam Fortune by Bolingbroke; g. d. by *Foljambe;* gr. g. d. by *Hubback;* gr. gr. g.d. bred by Mr. Maynard.

Paddock, (bred by Mr. James Brown) got by Mr. Robert Charge's bull, descended from the Studley bull: dam Mr. James Brown's red cow.

White bull. See Malcolm's pedigree.

Chilton, roan, bred by Mr. Mason, got by *Favourite*, dam Lily by *Favourite*, g. d. Miss Lax (bred by Mr. Maynard,) by Dalton Duke, gr. g. d. Lady Maynard, by Alcock's bull.

Favourite. See Malcolm's pedigree.

Mr. Mason's white bull, bred by Mr. C. Colling, got by *Favourite*, dam *Favourite*, (bred by Mr. Maynard,) by Alcock's bull: g. d. by Smith's bull: gr. g. d. by Jolly's bull.

Bolingbroke.
Foljambe.
Hubback.
Studley Bull.
Simon.
Dalton Duke.
R. Alcock's bull.
See Herd Book.

No. 4.—VIRGINIA.—Nine years, white—Begotten in England by General, dam Rosemary, (bred by J. C. Curwen, Esq.,) by Flash; g. d. Red Rose, by Petrarch; gr. g. d. by Alexander; gr. gr. g. d. by Traveller; gr. gr. gr. g. d. by Son of Bolingbroke.

General, (bred by General Simson) got by Young Star; dam Queen by Bruce: g. d. Empress, by *Western Comet;* gr. g. d. Bright Eyes by Marquis: gr. gr. g. d. by Simon: gr. gr. gr. g. d. by Traveller: gr. gr. gr. gr. g. d. by Colling's lame bull.

Flash, (bred by Mr. Seymour,) by Mr. Colling's Sir Dimple: dam Carnation, (bred by Mr. Seymour) by Cripple: g. d. Moss Rose by Henry: gr. g. d. Rosebud by Misfortune: gr. gr. g. d. Red Rose by *Favourite:* gr. gr. gr. g. d. by Bolingbroke.

Petrarch, (bred by Mr. Charles Colling) by Comet, dam *Venus* by Ben: g. d. *Phœnix* by *Foljambe;* gr. g. d. *Favourite* by Alcock's bull: gr. gr. g. d. by Smith's bull: gr. gr. gr. g. d. Strawberry, by Jolly's bull.

Alexander, (bred by Mr. Charles Colling,) by *Favourite.*

Traveller, got by Bolingbroke, dam Old Blossom.

Young Star, got by C. Colling's North Star, dam Mary, (bred by C. Colling,) by *Favourite:* g. d. Venus by Ben.

Bruce, got by Jupiter, dam Rola.

Western Comet.

Marquis, got by Petrarch, dam by *Daisy Bull:* g. d. by *Favourite:* gr. g. d. by *Hubback*

Sir Dimple, (bred by Mr C. Colling,) got by Comet, dam *Daisy*, by Grandson of Favourite: g. d. *Old Daisy* by *Favourite:* gr. g. d. by *Punch:* gr. gr. g. d. by *Hubback.*

Cripple, (bred by Mr. Mason,) got by Irishman, dam Fortune (bred by Mr. C. Colling,) by Bolingbroke: g. d by *Foljambe:* gr. g. d. by *Hubback:* gr. gr. g. d. bred by Mr. Maynard.

Henry, (bred by Mr. Mason,) got by St. John, dam Dandy by *Favourite:* g. d. Lily by *Favourite:* gr. g. d. Miss Lax, (bred by Mr. Maynard) by Dalton Duke: gr. gr. g. d. Lady Maynard, by R. Alcock's bull.

Colling's lame bull.
Misfortune, got by *Favourite.*
Favourite.
Bolingbroke.
Comet.
Ben.
Foljambe.
Alcock's bull.
See Herd Book.

North Star, (bred by C. Colling,) got by *Favourite*, dam *Young Phœnix* by *Favourite:* g. d. *Phœnix*, by *Foljambe:* gr. g. d. *Favourite*, (bred by Mr. Maynard,) by Alcock's bull.

Petrarch, (bred by C. Colling,) got by *Comet*, dam *Venus* by Ben: g. d. *Phœnix*, by *Foljambe*, gr. g. d. *Favourite*, (bred by Mr. Maynard,) by Alcock's bull.

Daisy Bull. See Malcolm's pedigee.

Hubback. See Malcolm's pedigree.

No. 5.—YORKSHIRE BELLE.—Six years, light roan—Imported in 1825, (bred by J. Whitaker, Esq. by Frederick, dam Yarm, by Symmetry; g. d. by R. Colling's Meteor; gr. g. d. by Windsor; gr. gr. g. d. by Grey Bull.

Frederick. See Volante's pedigree.

Meteor, (bred by R. Colling,) got by *Comet*, dam Diana by *Favourite:* g. d. *Old Wildair*, by *Favourite:* gr. g. d. by Ben: gr. gr. g. by Hubback: gr. gr. gr. g. d. by Snowden's bull: gr. gr. gr. gr. g. d. by Sir James Pennyman's bull.

Windsor (bred by Mr. Colling) got by *Favourite*, dam *Venus* by Ben. g. d. *Phœnix* by *Foljambe:* gr. g. d. *Favourite*, by R. Alcock's bull: gr. gr. g. d. by Smith's Bull: gr. gr. gr. g.d. Strawberry, by Jolly's Bull.

Grey Bull, got by White bull, dam by Punch: g. d. by Foljambe: gr. g. d. by Hubback.

White Bull, got by Favourite, dam by Favourite.

See Herd Book for
Hulton, the grandsire,
Comet, the gr. g. sire, and gr. gr. g. sire,
Major, the gr. gr. gr. g. sire,
of Yorkshire Belle.

No. 6.—MONICHA, 19 months, white—By Malcolm, d. Stately, No. 3.

No. 7.—MARCIA, 7 months, red—By Malcolm, d. Stately, No. 3.

No. 8.—ORTELLA, 16 months, red and white—By Memnon, d. Volante, No. 1.

No. 9.—BEATRICE, 16 months, red and white—By Memnon, d. Yorkshire Belle, No. 5.

No. 10.—ZENOBIA, 7 years, red—imported in 1828, bred by Mr. Woodhouse: see Herd Book for 1829.

No. 11.—SARAH, 6 years, light roan—imported in 1829: see Herd Book for 1829.

No. 12.—DELIGHT, 9 years, strawberry—imported in 1826; see Herd Book for 1829.

No. 13.—ROMP, 5 years, light roan—By Bishop, d. Shepherdess, imported by Mr. Skinner, 1822: see Herd Book for 1829.

No. 14.—ZULINDA, 16 months, red—by Malcolm, d. Romp, No. 13.

No. 15.—MARIA, 7 years, light roan—imported in 1827.

No. 16.—BIANCA, 29 months, white—by Malcolm, d. Stately No. 3.

No. 17.—GARCIA, 2 years, roan—by Malcolm, d. Delight No. 12.

No. 18.—PORTIA, 3 years, white—by Malcolm, d. Delight, No. 12.

No. 19.—BELLE, 9 years, red and white—imported in 1824.

No. 20.—EUGENIA, 23 months, white—by Malcolm, d. Virginia, No. 4.

No. 21.—ADELAIDE, 29 months, light roan—by Malcolm, d. Romp, No. 13.

No. 22.—LUCILLA, 13 months, red and white—by Memnon, d. Virginia, No. 4.

No. 23.—OPHELIA, 33 months, white—by Malcolm, d. Yorkshire Belle, No. 5.

No. 24.—CALISTA, 8 months, red—by Malcolm, d. Maria, No. 15.

No. 25.—NORA, 11 months, dark roan—by Malcolm, d. Annabella, No. 2.

No. 26.—MARGARET, dark roan: see Herd Book for 1829.

No. 27.—LUCRETIA, 10 months, dark roan—by Malcolm, d. Margaret.

No. 28.—DESDEMONA, 6 years, red and white—Imported in 1825 (bred by J. Whitaker, Esq.) by Frederick, dam Delia by Cleveland; d. *Red Daisy*[*] by Major; gr. gr. g. d. by Windsor; gr. gr. g. d. by *Favourite;* gr. gr. gr. g. d. by Punch; gr. gr. gr. gr. g. d. by Hubback.

Frederick. See Volante's Pedigree.

Cleveland, red and white, calved in 1819 (bred by and the property of Mr. T. Bates) got by Ketton the Third, dam *Duchess* the First (bred by Mr. C. Colling) by *Comet*, g. d. by *Favourite;* gr. g. d. by *Daisy Bull*, gr. gr. g. d. by Favourite; gr. gr. gr. g. d. by *Hubback;* gr. gr. gr. gr. g. d. by James Brown's red bull.

Major, red and white, calved in 1813 (bred by Mr. R. Colling) got by Wellington, dam by Phenomenon; g. d. by Favourite; gr. g. d. by Favourite.

Windsor (bred by Mr. C. Colling) got by *Favourite*, dam *Venus* by Ben; g. d, *Phœnix* by *Foljambe;* gr. g. d. *Favourite* by R. Alcock's bull; gr. gr. g. d. by Smith's bull; gr. gr. gr. g. d. Strawberry, by Jolly's bull.

Favourite, the sire of Comet, by Bolingbroke, dam *Phœnix* by *Foljambe;* g. d. *Favourite*, by R. Alcock's bull; gr. g. d. by Smith's bull; gr. gr. g. d. by Jolly's bull.

See Herd Book for the Pedigrees of the remainder.

No. 29.—ZULINDA, 10 months, roan and white—by Malcolm, d. Desdemona, No. 28.

No. 30.—CORDELIA, 7 months, roan—by Memnon, d. Portia, No. 18.

In addition to the foregoing, MARTHA, KATE, GYPSEY, ELIZA, SOPHIA, &c. will be offered for sale.

BULLS.

No. 1.—BOLIVAR, 5 years, red and white—Imported Nov. 1826, calved May 5, 1825 (bred by J. Whitaker, Esq.) got by *Frederick;* dam Sweetheart by Hermit; g. d. Buxom by Lawnsleeves; gr. g. d. Brampton by *Favourite;*[†] gr. gr. g. d. Bright Eyes by *Favourite;* gr. gr. gr. g. d. Old Bright Eyes by *Favourite;* gr. gr. gr. gr. g. d. by *Favourite;* gr. gr. gr. gr. gr. g. d. by Punch; gr. gr. gr. gr. gr. gr. g. d. by Hubback; gr. gr. gr. gr. gr. gr. gr. g. d. by *Snowden's Bull;* gr. gr. gr. gr. gr. gr. gr. gr. g. d. by Masterman's bull; gr. gr. gr. gr. gr. gr. gr. gr. gr. g. d. by Waistell's bull; Waistell's bull by Masterman's bull; Masterman's bull by the *Studley Bull.*

No. 2.—TECUMSEH, 2 years—red and white—by Malcolm, d. Desdemona, No. 28.

No. 3.—DIEGO, 12 months, red—by Malcolm, d. Delight, No. 12.

No. 4.—FREELOVE, 4 months, red—by Malcom, d. Volante, No. 1.

No. 5.—GALLANT, 4 months, red and white—by Malcom, d. Yorkshire Belle, No. 5.

No. 6.—ADONIS, 10 months, red and white—by Malcolm, d. Lady Betty, imported in 1825 (bred by J. Whitaker, Esq.) got by Alonzo, dam *Wil-*

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[*] Red Daisy gave 32 quarts per day. (*See the Rev. Henry Berry's Pamphlet.*)

[†] Sire of Comet.

*dair,** by R. Colling's Meteor; g. d. by Yarborough; gr. g. d. by Styford; gr. gr. d. by Hutton's bull, from *James Brown's Bull.*

No. 7.—ORLANDO, 11 months, spotted red and white—by Malcolm, d. Zulinda, No. 10.

No. 8.—RODERICK, 2 months, white—by Malcolm, d. Virginia, No. 4

No. 9.—OLIVER, 2 weeks, red and white—by Memnon, d. Garcia, No. 17.

No. 10.—BENEDICT, 2 months, red and white—by Hymen, d. Belle, No. 19.

No. 11.—MEMNON, 3 years, red and white—(imported in 1827, bred by J. Whitaker, Esq.) by Frederick, d. Yarico by Alonzo, g. d. Yellow Rose by Major, gr. g. d. by grey bull (son of White Bull) by Favourite, dam by Hubback, out of own sister to the dam of Red Rose and Styford, gr. gr. g. d. by Styford, gr. gr. gr. g. d. by R. Parker's bull.

Extracts from Improved Short Horns and their Pretensions, by the Rev. Henry Berry, of Acton Rectory, (Eng.)

The instances which are given as to milk were obtained by the author on the spot; and though he would gladly have included any others, had they been furnished, it appears to him that no trifling force is afforded to his argument, by the circumstance of the cases which are set forth being derived from one stock;—irrefragable proof being thus furnished that they are not solitary instances, but happening in the regular course.

The cows recorded here are the property of J. Whitaker, Esq. of Greenholme, near Otley, and are of the most esteemed blood. [See Herd Book.] They have given, and give, twice a day, as follows:

Yellow Rose, at three years old, four gallons two quarts, twice a day.

Yellow Rose, at four years old, four gallons three quarts, twice a day. (The g. d. of Mr. Powel's Memnon.)

Red Daisy, four gallons, twice a day. (She is the g. d. of Mr. Powel's Desdemona, and the g. d. of Mr. Powel's Betty, on the male side.)

Magdalena, upwards of four gallons, twice a day.

Wildair, four gallons, twice a day. (The dam of Mr. Powel's Betty.)

Western Lady, three gallons two quarts, twice a day. (The dam of Mr. Powel's Malcolm.)

Venus, sixteen years old, three gallons one quart, twice a day. (The g. d. of Mr. Powel's Volante.)

Alfrede, three gallons twice a day. (The g. d. of Mr. Powel's Gloucester.)

Adela, first calf, three gallons, twice a day. (The dam of the same.)

Yarm, three gallons twice a day. (The dam of Mr. Powel's Yorkshire Belle.

These cows are steady milkers, possessing great inclination to fatten, and Mr. Whitaker cannot be too highly complimented on his successful exertions to combine the two qualities. The remainder of his stock will be found by no means contemptible as milkers; but it is thought unnecessary to remark upon any ordinary quantities.

Without entering further into particulars, this subject may properly be dismissed with a remark of Mr. C. Colling, that the *Duchess* and *Daisy* tribes, with whose merit as grazier's stock, the public are well acquainted, were all good milkers, possessing that valuable *union* of qualities of which it is thus obvious every breeder of short-horns may avail himself who chooses to make it the object of his care.

It remains for the author to remind his readers, that it is of the *Improved* Short-horns he writes, and not of the general herd of cattle which are sold as short-horns, from the northern districts.

NOTE. And it may be added, nor did he allude to those sent to America without pedigree, or claims to the properties of the high bred race.

The success of Mr. Whitaker's breed in *beating* the Herefords on various occasions and particularly in 1824, when Wharfdale (by ENCHANTER, dam Miranda*) "*beat*" all the Short-horns, and afterwards *the field*, as well as his triumph at the Doncaster show in 1825, when Matilda, by WESTERN COMET, beat Mr. Champion's, &c. proves that in points and feeding properties, *his families* of Short-horns are not less remarkable than in excellence for the churn.—[*Am. Ed.*

From Bailey's Survey of Durham, made by order of the British Agricultural Board.

As a proof of the estimation in which this breed of Short-horned cattle is held, not only by skilful judges in distant parts of the empire, *but in its own immediate neighbourhood*, it is merely requisite to adduce the catalogue of Mr. Charles Colling's sale, which took place at Ketton on the 11th of October, 1810, in consequence of his having declined business.

	Guineas.
COWS.	
Cherry, 11 years old,	83
Kate, 4 years old,	35
Peeress, 5 years old,	170
Countess, 9 years old,	400
Celina, 5 years old,	200
Johanna, 4 years old,	130
Lady, 14 years old,	206
Laura, 4 years old,	210
Cathleen, 8 years old,	150
Lily, 3 years old,	410
Daisy, 6 years old,	140
Cora, 4 years old,	70
Beauty, 4 years old,	120
Red Rose, 4 years old,	45
Flora, 3 years old,	70
Miss Peggy, 3 years old,	60
Magdalen, 3 years old,	170
BULLS.	
Comet, 6 years old,	1000
Yarborough, 9 years old,	55
Cupid. Not sold.	
Major, 3 years old,	200
Mayduke, 3 years old,	145
Petrarch, 2 years old,	365
Northumberland, 2 years old,	60
Alfred, 1 year old, by Comet,	110
Duke, 1 year old, by Comet,	105
Alexander, 1 year old, by Comet,	60
Ossian, by Windsor,	76
Harold, by Windsor,	50
BULL CALVES.	
Ketton, by Comet,	50
Young Favourite,	140
George,	120
Sir Dimple,	96
Narcissus,	15
Albion,	60
Cecil,	170
HEIFERS.	
Phœbe, 3 years old,	105
Young Duchess, 2 years old,	183
Young Laura, 2 years old,	101
Young Countess,	206
Lucy, 2 years old,	132
Charlotte,	136
Johanna,	35
HEIFER CALVES.	
Lucilla,	106
Calista,	50
White Rose,	75
Ruby,	50
Cowslip,	25

The total amount of the 47 lots (one being unsold) is 6073*l.* 4*s.* or nearly 130*l.* each.

(From Loudon's Encyclopædia of Agriculture.)

THE HOP.

Humulus lupulus, L. *Diœc. Pentan.* L. and *Urticeæ*, J. *Houblon*, Fr.: *Hoppen*, Ger.; *Lupulo*, Span.; and *Lupulo*, Ital.

(Concluded from page 82.)

With respect to the species of woods proper for poles, it is suggested that they appear to prefer a rough soft bark, to one which is more smooth and polished. An experienced grower particularises the maple, whose bark is peculiarly soft and warm; adding, that he has frequently observed, when the morning has been cold, the sensitive leader of a tender fresh-poled vine reclining its head against the velvet bark of the maple, while others held theirs aloof, from chilly smooth-barked poles. This is probably a general law, or ordinance of nature, to climbing plants; and may be essential to their preservation, showing, in a palpable manner the perception and strength of vegetable instinct.

And in regard to *the size of the pole*, hops, likewise, it is well known, have their instinctive choice or approbation, with respect to the thickness of their support; embracing, with greater readiness, a pole that is moderately small, than one which is thick at the bottom. The ordinary circumference of poles, at the thickest end, may be set down at six to nine inches, tapering to the size of a walking-cane at the top. And the length from fifteen to twenty feet, or upwards. Different grounds require different lengths of pole. In the rich grounds, in the neighborhood of Maidstone, the poles of grown hops stand, in general, from fourteen to sixteen feet above the hills, and have from eighteen inches to two feet beneath the surface. But, on weaker lands, poles are not seen to rise more than ten to twelve feet high. Hence, a variety of ground is convenient; as the poles, by decaying at the roots, grow shorter, and, in a course of years, get too short for strong vines, on rich land. They are, in this case, sold and transferred to less productive lands, and vines of humbler growth.

New poles have sometimes the bark shaved off, under an idea that it saves them from the worm; while some men are of opinion, that there is a warmth in the bark, which is acceptable to the young vines; and although in two or three years the bark drops off, the surface of the wood has, by that time, acquired a degree of softness. Whether a hard, smooth, polished pole, is unfriendly to the hop or not, to peel the poles would evidently be improper, as promoting their decay.

Short light poles are usually pointed in hand, without other support. But the tall heavy pole requires something to keep the top steady. This is simply had, by tying together three poles of equal length, two or three feet from their tops; and setting them up in the form of what are called triangles, in use for loading timber on wheel-carriages. The top of the pole to be sharpened, being dropped in between the points or horns of the triangles, receives the required stay; a block being placed in a convenient situation below, to work upon. And this sort of work, whether on new or old poles, is sometimes done before they are stacked, or set up in piles; sometimes immediately before they are used. But in pointing poles that have been used, the part which stood in the ground the preceding year is struck off, if much tainted, and a fresh point given to the sound part. But, if the bottom part remain firm, it is sharpened again for another season.

Tying the shoots or vines to the poles is the last operation in the after or summer culture of the hop. This requires the labor of a number of persons: women are generally employed, who tie them in several different places with withered rushes, but so loosely as not to prevent the vines from advancing in their progress towards the top of the poles. When the vines have got to such a height as to be beyond reaching with the hand, proper persons go round, and, using standing ladders, tie all the vines that appear inclined to stray from the poles.

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* Wildair and Red Daisy gave *each* 32 quarts per day. (*See the Rev. Henry Berry's Pamphlet.*)

* Enchanter is the sire of Malcolm—Western Comet was the sire of Western Lady, Malcolm's dam. See Herd Book.

The season for this operation varies from the middle of May to the end of June, and one important part of the operation consists in selecting the shoots. The forwardest vines should always be extirpated, as it is well known that the branches arising from these early shoots will produce little, if any fruit. The second shoots, where the hills are not overloaded with plants, and where the ground is not of a nature to send forth a very luxuriant vine, may with safety be tied up. But where the land is apt to push forward a great redundancy of shoots, where the vine is always strong and vigorous, and where the failure in the crop chiefly arises from this cause, the greatest prudence is necessary, at the season for tying, to make choice of a proper vine; especially in years which may be supposed to be attended with a blast; such as those wherein an easterly wind has prevailed throughout the month of March, whence one may fairly conclude that the same weather will happen during the course of the month of May, which never fails to bring the long-winged fly. In such a season it would be well worth while to eradicate all the vine which first appears, and trust to a latter shoot, so as to protract the tying till the last week in May. This hint was taken from the observations made on the poor and thin lands in such blasting years where the vine is naturally backward, and seldom becomes fit for the tyers till towards the latter end of May, when that on the forward ground will have advanced nearly to the tops of the poles, and to an inattentive observer seems to promise fair for a crop; whereas, to those who have been conversant in these matters, the loss of the crop, though the vine at that time be green and flourishing, may be easily foreseen; whilst on the poorer soils there is generally a saving crop even in years when the blast is most prevalent. These considerations, he says, have suggested the protracting the growth of the vine in the manner above-mentioned, which seems conformable to reason and experience.

Taking the crop is a most important operation in the hop economy. Hops are known to be ready for pulling when they acquire a strong scent, and the seeds become firm and of a brown color, which, in ordinary seasons, happens in the first or second week of September. And when the pulling season arrives, the utmost assiduity is requisite on the part of the planter, in order that the different operations may be carried on with regularity and despatch; as the least neglect, in any department of the business, proves in a great degree ruinous to the most abundant crop, especially in precarious seasons. Gales of wind at that season, by breaking the lateral branches, and bruising the hops, prove nearly as injurious as a long continuance of rainy weather, which never fails to spoil the color of the crop, and thereby render it less saleable.

As a preparation for pulling the hops, frames of wood, in number proportioned to the size of the ground, and the pickers to be employed, are placed in that part of the field which, by having been most exposed to the influence of the sun, is soonest ready. These frames, which are called *bins* or *cribs,* are very simple in the construction, being only four pieces of boards nailed to four posts, or legs, and, when finished, are about seven or eight feet long, three feet broad, and about the same height. A man always attends the pickers, whose business it is to cut over the vines near the ground, and to lay the poles on the frames to be picked. Commonly two, but seldom more than three, poles are laid on at a time. Six, seven, or eight pickers, women, girls, and boys, are employed at the same frame, three or four being ranged on each side. These, with the man who sorts the poles, are called a set. The hops, after being carefully separated from the leaves and branches, or stalks, are dropped by the pickers into a large cloth, hung all round within-side the frame on tenter-hooks. When the cloth is full, the hops are emptied into a large sack, which is carried home, and the hops laid on a kiln to be dried. This is always done as soon as possible after they are picked, as they are apt to sustain considerable damage, both in color and flavor, if allowed to remain long in sacks in the green state in which they are pulled. In very warm weather, and when they are pulled in a moist state, they will often heat in five or six hours: for this reason the kilns are kept constantly at work, both night and day, from the commencement to the conclusion of the hop-picking season.

To set on a sufficient number of hands, is a matter of prudence, in the picking season, that the oasts or kilns may never be unsupplied with hops; and if it is found that the hops rise faster than could have been expected, and that there are more gathered in a day than can be conveniently dried off, some of the worst pickers may be discharged; it being very prejudicial for the green hops to continue long in the sacks before they are put on the oast, as they will in a few hours begin to heat, and acquire an unsightly color, which will not be taken off in the drying, especially if the season be very moist; though, in a wet hopping, it is no easy matter to prevent the kilns from being overrun, supposing that there were pickers enough to supply them if the weather had been dry, because in a wet cold time the hops require to lie a considerable while longer on the kiln, in order that the superabundant moisture may be dried up. It is therefore expedient in this case that each measuring be divided into a number of green pockets or pokes. The number of bushels in a poke ought never to exceed eleven; but when the hops are wet, or likely to continue together some time before they go on the kiln, the better way is to put only eight bushels in a sack, pocket, or poke.

Donaldson asserts, that diligent hop-pickers, when the crop is tolerably abundant, will pick from eight to ten bushels each in the day, which, when dry, will weigh about one hundred weight; and that it is common to let the picking of hop-grounds by the bushel. The price is extremely variable, depending no less on the goodness of the crop than on the abundance or scarcity of laborers. The greatest part of the hops cultivated in England are picked by people who make a practice of coming annually from the remote parts of Wales for that purpose.

The operation of drying hops is not materially different from that of drying malt, and the kilns, or oasts, are of the same construction. The hops are spread on a hair-cloth, and from eight to ten, sometimes twelve, inches deep, according as the season is dry or wet; and depending also on the state of the hops in regard to ripeness. A thorough knowledge of the best method of drying hops can only be acquired by long practice. The general rules are to begin with a slow fire, and to increase it gradually, till, by the heat on the kiln, and the warmth of the hops, it is known to have arrived at a proper height. An even steady fire is then continued for eight or ten hours, according to the state or circumstances of the hops, by which time the ends of the hop-stalks become quite shrivelled and dry, which is the chief sign by which to ascertain that the hops are properly and sufficiently dried. They are then taken off the kiln, and laid in a large room or loft till they become quite cool; and they are now in condition to be put into bags, which is the last operation the planter has to perform previous to sending his crop to be sold.

When hops are dried on a cockle-oast, sea-coal is the usual fuel, of which a chaldron is generally esteemed the proper allowance to a load of hops. On the hair kilns, charcoal is commonly used for this purpose. Fifty sacks of charcoal are termed a load, which usually sells for about fifty shillings. The price for burning is three shillings per load, or twelve shillings for each cord of wood. The process of drying having been completed, the hops are to be taken off the kiln, and shovelled into an adjoining chamber called the stowage-room; and in this place they are continually to be laid as they are taken off the kiln, till it may be thought convenient to put them into bags, which is rarely done till they have lain some time in the heap; for the hops, when first taken off the kiln, being very dry, would (if put into the bags at that time) break to pieces, and not draw so good a sample as when they have lain some time in the heap; whereby they acquire a considerable portion of toughness, and an increase of weight.

The bagging of hops is thus performed:—in the floor of the room, where the hops are laid to cool, there is a round hole or trap, equal in size to the mouth of a hop bag. After tying a handful of hops in each of the lower corners of a large bag, which serve afterwards for handles, the mouth of the bag is fixed securely to a strong hoop, which is made to rest on the edges of the hole or trap; and the bag itself being then dropped through the trap, the packer goes into it, when a person who attends for the purpose, puts in the hops in small quantities, in order to give the packer an opportunity of packing and trampling them as hard as possible. When the bag is filled, and the hops trampled in so hard as that it will hold no more, it is drawn up, unloosed from the hoop, and the end sewed up, other two handles having been previously formed in the corners in the manner mentioned above. The brightest and finest colored hops are put into pockets or fine bagging, and the brown into coarse or heavy bagging. The former are chiefly used for brewing fine ales, and the latter by the porter brewers. But it is to be observed, that where hops are intended to be kept for any length of time, it is most proper to put them into coarse cloth. The proper length of a bag is two ells and a quarter, and of a pocket nearly the same, being one ell in width. The former, if the hops are good in quality, well cured, and tightly trodden, will weigh about two hundred and a half; and the latter, if of the Canterbury pocketing, about one hundred and a half. If the weight either exceeds or falls much short of this medium, it induces a surmise, that the hops are either in themselves of an inferior quality, or have been injudiciously manufactured in some respect or other.

The stripping and stacking of the poles succeeds to the operation of picking. It is of some consequence that this business be executed as soon as possible after the crop is removed; not only that the poles may be much safer from thieves when set up in stacks, but that in such form they may take far less damage by the weather than when dispersed about the ground with the vine on them. The usual price for stripping and stacking is five shillings per acre. At this time, such poles as may be deemed unfit for further service should be flung by, that the planter may have an early knowledge of the number of new poles which will be wanting; and thus the business of bringing on the poles may be completed in the winter time, when the horses are not required about other labor; and these new poles may be drawn from the wood on the ground, and adjusted to the separate stacks, as the state of the different parts of the ground may require, and the whole business be completed before the poling season: whereas, when this method of flinging out the old poles is neglected at the stacking, the planter being ignorant of the number of new poles that will be required for the ensuing year, often finds at the poling season that he has not laid in a sufficient stock.

In performing the operation of stacking, the poles are set up in somewhat conical piles, or congeries, of two to five hundred each. The method of proceeding is this: three stout poles of equal length are bound together, a few feet from their tops, and their feet spread out, as these already mentioned for pointing the poles. These serve as a stay to the embryo pile; the poles being dropped in on each side, between the points of the first three; cautiously keeping an equal weight on every side; for, on this even balance, the stability of the stack depends. The degree of inclination or slope, and the diameter of the base of the pile, vary with the length and the number of poles set up together. A stack of three or four hundred of the long poles of the environs of Maidstone, occupy a circle of near twenty feet in diameter. It is observable, however, that the feet of the poles do not form one entire ring; but are collected in bundles or distinct divisions, generally from three to six or eight in number; each fasciculus being bound tightly together, a few feet from the ground, with a large rough rope made of twisted vines, to prevent the wind from tearing away the poles; and the openings between the divisions give passage to violent blasts, and tend to prevent the piles from being thrown down in a body; a circumstance which does not often take place in screened grounds. But, on the high exposure of Cox Heath, where great quantities of new poles brought out of the Weald are piled for sale among the Maidstone planters, it is not uncommon for the piles to be blown down, and to crush in their fall the sheep or other animals that may have taken shelter under them. A caution, this, to the inexperienced in the business of stacking; and an apology, if one is wanted, for the minuteness of the detail.

The operation of stripping is generally performed by women; being nothing more than tearing off the bind or vines. Many people burn it on the ground. Others suffer it to be carried off by their workmen for firing; and there are some, who tie it up into small bundles, which they bring home and form into a stack, to answer the purpose of bavins in heating their ovens or coppers.

The produce of the hop crop is liable to very considerable variation, according to soil and season, from two or three to so much as twenty hundred weight; but from nine or ten, on middling soils, in tolerable seasons, are considered as average crops, and twelve or fourteen good ones. Bannister asserts, that sixty bushels of fresh gathered hops, if fully ripe, and not injured by the fly or other accident, will, when dried and bagged, produce a hundred weight. Where the hops are much eaten by the flea, a disaster which often befals them, the sample is not only reduced in value, but the weight diminished; so that, when this misfortune occurs, the planter experiences a two-fold loss.

To judge of the quality of hops, as the chief virtue resides in the yellow powder contained in them, which is termed the condition, and is of an unctuous and clammy nature, the more or less clammy the sample appears to be, the value will be increased or diminished in the opinion of the buyer. To this may be added the color, which it is of very material consequence for the planter to preserve as bright as possible, since the purchaser will always insist much on this article; though, perhaps, the brightest colored hops are not always the strongest flavored.

The duration of the hop plantation on good soil may be from fifteen to thirty years; but in general they begin to decline about the tenth year. Some advise that the plantation should then be destroyed and a fresh one made elsewhere; others consider it the best plan to break up and plant a portion of new ground every two years, letting an equal quantity of the old be destroyed, as in this way a regular succession of good plantation will be kept up at a trifling charge.

The expenses of forming new hop-plantations is in general very great, being estimated, in many districts, at from not less than seventy to a hundred pounds the acre. The produce is very uncertain; often very considerable; but some seasons nothing, after all the labor of culture, except picking, has been incurred. Where the lands are of the proper sort for them, and there are hop-poles on the farm, and the farmer has a sufficient capital, it is probably a sort of husbandry that may be had recourse to with advantage; but under the contrary circumstances, hops will seldom answer. In growing them in connection with a farm, regard should be had to the extent that can be manured without detriment to the other tillage lands. On the whole, hops are an expensive and precarious crop, the culture of which should be well considered before it is entered upon.

The use of the hop in brewing is well known: their use is to prevent the beer from becoming sour. In domestic economy the young shoots are eaten early in the spring as asparagus, and are sold under the name of hop-tops; they are said to be diuretic, and to be good against the scurvy, taken in an infusion. The herb will dye wool yellow. From the stalks a strong cloth is made in Sweden: for this purpose they must be gathered in autumn, soaked in water all winter; and in March, after being dried in a stove, they are dressed like flax. They require a longer time to rot than flax, and if not completely macerated, the woody part will not separate, nor the cloth prove white or fine. Hence a farmer who has a hop plantation need neither grow asparagus nor flax, and may, when the flowers fail from disease, separate the fibre from the vine, and employ the poor, or machinery, in spinning and weaving it. A decoction of the roots of hops is considered as good a sudorific as sarsaparilla; and the smell of the flowers is found to be soporific. A pillow filled with hops was prescribed for the use of Geo. III. in his illness of 1787.

The hop is peculiarly liable to diseases. There is scarcely any sort of plant cultivated as a field-crop that is more liable to become diseased than the hop. It is apt, in the very early stage of its growth, to be devoured, as it rises above the surface of the ground, by the ravages of an insect of the flea kind. At a more advanced stage, it is subject to the still more injurious effects of the green or long-winged fly, red spider, and otter moth: the former, by the depositing of their ova, afford the means of producing lice in great abundance; by which the plants are often very greatly, if not wholly, destroyed, and the larvæ of the latter prey upon the roots, and thus render the plants weak and subject to disease. The honey-dew is another disease to which the hop is exposed about the same time, and by which it is often much injured. The mould occurs in general at a somewhat later period, being equally injurious. Hop-crops are also exposed to other injuries, as the blight, and fire-blast, but which take place at different times, though mostly towards the latter periods of the growth of the plants.

With regard to *the flea,* which is said to be an insect of the same kind as that which is so prejudicial to the young turnip, it is observed to make the greatest havoc in seasons where the nights are cold and frosty, and the days hot and inclined to be dry; eating off the sweet tender tops of the young plants; and which, though not wholly destroyed, shoot forth afterwards in a far less vigorous manner, and of course become more exposed to diseases. It has been found to commit its depredations most frequently on the plants in grounds that have been dunged the same year; on which account it has been suggested that the manure employed for the purpose of covering the hills should be previously well mixed and incorporated as directed above; and that it should be applied either over the whole of the land, or only the hills, as soon as possible after the plants have been cut over; but the former practice is probably the best. It makes its greatest depredations in the more early cold spring months, as the latter end of April and beginning of the succeeding month, disappearing as the season becomes more mild and warm. In these cases, the principal remedy is that of having the land in a sufficient state of fertility, to enable the young plants to shoot up with such vigor and rapidity as to become quickly incapable of being fed upon and devoured by the insect. And the frequent stirring of the mould about the roots of the plants by the hoe may be of utility in the same view.

With respect to the *green or long-winged fly,* it mostly makes its appearance about the latter end of May, and in the two succeeding months; being supposed to be produced by the prevalence of north-easterly winds about that period. It is highly destructive to the young leaves of the plants. They are said, under such a state of the wind, to scarcely ever fail covering the leaves; and, by dropping their ova, producing an abundance of lice, by which the crops are often much injured; as when they have once obtained complete possession of the plants, they seldom or ever leave them before they are wholly destroyed. The forwardest and most luxuriant hop-vines are in general the most disposed to be attacked by insects of this sort. Their removal chiefly depends upon a change taking place in the wind more to the south, and the setting-in of more mild, warm, and temperate weather.

It has been found that *the otter moth,* by depositing its eggs upon the roots of the plants, renders them liable to be attacked by the larvæ, and the healthy growth of the hops to be thereby greatly impaired, the crops being of course much injured in their produce. Stirring the earth well about the roots of the plants may probably sometimes be serviceable in cases of this kind.

The honey-dew mostly occurs after the crops have been attacked by some of these kinds of insects, and when the weather is close, moist, and foggy. In these cases, a sweet clammy substance is produced upon the leaves of the plants, which has the taste of honey, and they have at first a shining appearance, but afterwards soon become black. It is a disease that mostly happens in the more forward crops; and the chief dependence of the planter for its removal, according to Bannister, is that of heavy thunder showers taking place; as by this means, when the destruction of the hops has not proceeded too far, they are often much restored, the insects that devour the leaves and vines being greatly destroyed, the growth of fresh shoots promoted, and a favorable bloom brought on the plants.

It is well known that *the fen, mould,* or *mildew,* is a disease to which the hop-crop is exposed at a later period of its growth, and which chiefly attacks the part where the hop is attached to the stem. It is said that its production is greatly promoted by moist damp weather, and a low situation; those hop-crops, that grow on low, close, rich grounds, being the most liable to be attacked by it: and it is found to soon spread itself over the whole crop, after it has once seized upon any part of it. The nature of this vegetable disease has not been yet sufficiently investigated; it has been suggested by Darwin and Willdenow to be a plant of the fungus kind, that is capable of growing without light or change of air, attaching itself to plants already in a morbid condition, and by its roots penetrating their vessels. And on this supposition, the best remedy is believed to be that of thinning the plants, in order to afford a more free circulation of air, and admit the light more extensively; by which the vigor of the hop-plants may be restored, and the disease be of course removed. In this view, it is probable, by planting the hills more thinly, and making them at greater distances from each other, the disease might in some measure be prevented from taking place.

Diseases termed blights are frequently met with in hop-crops, at different periods of the growth of the plants, but mostly in the more early stages of their rising from the hills, while the nights are cold and frosty in the spring months, and the days have much sun and heat; by which the living powers of the plants are greatly exhausted in the day-time by the stimulus of heat, and of course much injured, or wholly destroyed in the nights, from being exposed to a freezing air, which is incapable of exciting the actions, which are necessary for the preservation of vegetable life. As the presence of this disease is supposed to be greatly connected with the prevalence of winds from the northern or easterly quarters, there is often a flea produced of a similar kind to that which attacks the shoots in their early growth. It is highly injurious, by preying upon the nutriment of the blossoms, and thereby diminishing their weight and changing them to a brown color, which is very prejudicial in their sale at the market.

The fire-blast is a disease that hop-crops are exposed to, in the later periods of their growth, and generally supposed to proceed from the particular state of the air or weather. It has been conjectured to be the effect of lightning, as it takes place, for the most part, at those seasons when it is the most prevalent, and in a very sudden manner: and besides, the most forward and most luxuriant vines are the most subject to be affected. It has been suggested, that in exposures that are particularly liable to have the crops thus injured, it may be advisable to plant thinner, to keep back the growth of the plants as much as possible, by extirpating all the most forward shoots, and to employ a less proportion of the earthy compost in their culture.

In respect to the duty on hops, it is best for the planter to have the acts before him. But every grower of hops in Britain is legally obliged to give notice to the excise, on or before the first day of September, of the number of acres he has in cultivation; the situation and number of his oasts; the place or places of bagging, which, with the store-rooms, or warehouse, in which the packages are intended to be lodged, are entered by the revenue officer. No hops can be removed from the rooms thus entered before they have been weighed and marked by a revenue officer; who marks, or ought to mark, not only the weight, but the name and residence of the grower, upon each package.

The North Carolina Farmer, No. III.

ON THE CULTIVATION OF TEA.

Though I did not promise *method* in the publication of these papers, yet I intended *more* than will probably be observed An essay on one of the initial steps of agriculture is laid aside for an article that does not very naturally follow log rolling;—but the *time* rather than the *order* may make its present appearance proper.

It has occurred to me that Congress might adopt some measures to introduce advantageously the cultivation of tea. We have climates well adapted to its culture, the shrub is hardy and durable, the product abundant, and the process of curing, simple and easy. The importation of the article is large, and might, much of it, be saved to our country; and the depressed state of our agriculture requires that we should vary our products, and substitute for those yielding little profit, others that will afford more. In the imperial garden of Brazil, ten acres are in tea cultivation, that might produce, it is supposed, thirty thousand pounds weight annually, were it all saved and cured, and which an intelligent Portuguese gentleman lately assured me was equal to the middling teas imported from China. Don John, king of Portugal, introduced it during the time of his Lisbon troubles, and procured Chinese to cultivate it. We have been deterred from attempting it in this country by accounts of the minuteness and difficulty of the curative process, *that each leaf of the finer teas was separately rolled in the fingers.* It is not so. The finer teas are rubbed and rolled by handfulls; but the common sorts, after being heated in pans, are agitated and rolled by the horizontal motion of two wide and flat baskets, one inverted over the other. Tea is produced also at St. Helena, and the Cape of Good Hope, in sufficient quantities, and with success enough to show the capabilities of those places, and the competency of the persons who have essayed its culture. Any of our Southern states may produce it; for in China it grows in every climate, from Canton to Pekin, and flourishes in Japan. Now the secretary of state could procure the necessary information from our public functionaries, merchants and others at Rio Janeiro and Canton, as well as seeds and plants for distribution. Chinese, skilled in its culture, could also, if necessary, be easily had. If those beyond the reach of the influence of an obscure farmer do not improve these hints, our public spirited merchants may be induced, without other influence than their own patriotic motives, to procure these important benefits for their country. Mr. Skinner has the power, in this respect, and I doubt not the will, to make himself, more than ever, a public benefactor. One tenth of the exertions that have been employed in favour of the silk culture, would place us independent of China, and save millions to our agriculture.

JETHRO DION.

P. S. Though the imperial garden of Brazil, of which I have spoken, is very honourable to the sovereign who established it, yet its present state is not equally creditable to his successor. The king, Don John, placed it under the direction of a scientific German. The Emperor, Don Pedro, has given it over to the care of monks, by whom it is managed as the affairs of monks usually are. Humboldt, on the banks of the Amazon or Oronoque, I forget which, met with some of Don John's Chinese, marketing bamboo fans which they had brought from Asia. J. D.

GRAIN.

[We shall certainly endeavour, as far as practicable, to comply with the following suggestions, of one of our correspondents, most respected and most distinguished for zeal and knowledge.]

J. S. SKINNER, ESQ. *Cambridge, May* 16, 1830.

A subject upon which I last wrote you, viz. the extension of your prices current, and *accurately,* to some of the southern markets, say, Norfolk, Charleston, and Savannah, *for grain,* would add more to the value of the "Farmer" than any measure that could be adopted; and more, too, to the advantage of the cultivator of the soil. It is certainly, as necessary and useful to know *when to sell,* as *how to make grain;* and the *southern* are more interesting to us, of Maryland, than the *northern* markets; at least for the great Maryland staple, "Indian corn." You will excuse my repeating my letters on this subject, as my zeal, as well as my deep interest for agricultural prosperity have increased with my years.

I sent to Baltimore a cargo of corn, or part of one, a few days past, of best white; it was sold for 34 cts., out of which comes 6 cents freight and commission; a boatman, direct from Charleston, about the same time, got 58 cents—if I had been apprised of this market in time, I would have gained 24 cents per bushel, or about 70 or 80 per cent., which the Baltimore speculator made out of my cargo, for it was taken directly out of my boat into one for Charleston.—Be assured, that nothing could add so much to the intrinsic value of your paper; the *foreign* intelligence of markets, which you have adopted, is very satisfactory and benefical, forming an indirect basis for calculation, and I hope will be continued; but a *regular* and *certain* information from the domestic ports which I have named, would operate *directly,* and *largely,* and *incalculably* for the farmer's benefit, and he most lamentably needs every possible assistance. J. E. M.

P. S. The Hessian fly has committed great ravages here, and in Talbot—but my crop, which I informed you before was *unusually fine* and *forward,* is almost wholly *exempt* from it—and never was so great.

I must add, that A. Stevenson, Esq. S. H. R. sent me this spring a specimen of very hardy looking "wheat from Malaga," said to resist all the evils incident to wheat.—I ventured to waste, (as I thought, a few grains,) by planting them 30th of March, just soaking them in diluted chlorine; they vegetated immediately, and now they are 18 inches high and astonishingly luxuriant, and promise to produce grain.

A man's nature runs either to herbs or weeds; therefore, seasonably water the one and destroy the other.

THE CROPS.

The Hessian fly continues its destructive work in our rising crop of wheat. In some instances our farmers have ploughed up their fields, and in many others the crop will scarcely be worth cutting. In the adjoining county, Franklin, and particularly in the neighborhood of Mercersburg, the ravages of this common enemy of our farmers, are represented as being very great. In parts of our county, the wheat crop will be very heavy.

From the Virginia papers we learn that serious injury has been sustained from the fly in that state, as well as on the Eastern Shore of Maryland.

[*Hagerstown (Md.) Torch Light.*

LADIES' DEPARTMENT.

(From the Journal of Health.)

LADIES ON HORSEBACK.

The nearest approach to manliness that it is allowable for a female to make conformably with the preservation of her feminine character for grace and delicacy, is when riding on horse back She sits with an air of dignity, which an occasional inclination forwards and the easy curve of the bridle arm contrasting with the pendant position of the whip, prevents one from appearing stiff or constrained. And then her hat and feathers—her worked collar, and braided coat, studded with small buttons, give an air of out-door adventure made wonderfully interesting by her sparkling eye and the rich carnation of her cheek, while her falling ringlets shade the deep suffusion of her temples. Let us suppose a fair companion thus mounted and equipped, adding to the charm of her appearance the additional fascination of a ready smile and playful remark, and who shall resist her power? No drawing room belle in all the decorations of lace and gauze, pearl and diamonds, can look half so lively or enchanting. We do not, while thus admiring a lady on horseback, recommend that she should be able to keep up with the hounds in a stag or fox-chase, like Lady——; nor run races for high bets, like Mrs. Thornton, the wife of the celebrated English sporting Colonel of that name. It is enough that she should guide her steed with readiness, and not be alarmed when its gait is accelerated, or it displays occasional restiveness. Should she be ignorant of this art and desirous of gaining the requisite information, we would refer her, after her father, or brother, or cousin, to the "Principles of Modern Riding for Ladies,"[*] a work which the author says, will secure the security, ease, and grace of the riders. Mr. Allen is no charlatan in the business. He lays down every thing very methodically, and teaches the requisites for successful horse-riding—we were going to say horsemanship.—His description of what ought to be the character of a lady's horse, strikes us as excellent. We could hardly wish for better in her companion on the road: we might say, through life. He should, says Mr. Allen, be no-wise choleric or impatient in company: he ought to be smooth in all his paces—steady and safe on the road—and suitably dressed or broke.—But as a well educated horse, such as would correspond with this description, is as rare as a highly polished and accomplished gentleman, the ladies in the country, generally, must put up with steeds which have some awkward tricks, such as occasionally shying, if not kicking and rearing. To sit well, and manage a horse, demand not only dexterity but patience; and hence another advantage in a female becoming an equestrian. She will find the little arts of soothing the quadruped, such as slacking the reins—patting its neck—and an encouraging word, excellent preparations for the management of a restive biped with whom she may choose to pass years of her life. On the subject of what Mr. Allen calls aids—animations—soothings—corrections—as well as the use of the hand, he gives suitable directions in his book. He discusses also the topics of walk, trot, gallop, and amble; which last he considers as the natural pace of the horse; also of the saddle and bridle, curb and stirrup; mounting, dismounting, of the seat and of the balance. He points out the best method of circling, and leaping, if the lady's ambition should tempt her, like Diana Vernon, to clear a fence which should obstruct her passage. The better to illustrate his meaning, he has given no less than twenty-three plates of the different positions, movements, and situations, described in his work.

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[*] **By John Allen, Riding Master, London.**

The beneficial effects on the health of females of riding on horseback, are of a very decided character. In all those ailments indicated by the vague epithets of nervousness, without pain or much fever, where there is palpitation, tremors, paleness of complexion, sick headache, deficient or irregular appetite, and the many disturbances associated with indigestion, this kind of exercise will often do more good than all the art medicinal. But there is one condition, of indispensable performance, for the accomplishment of the desired end: it is that the rider shall not be so corseted, tied, or buckled up, as at all to impede the free expansion of her chest, and movement in every direction of her arms. She is not expected, nay, she is expressly forbidden, to sit on her horse, unyielding and unbending, as when in a drawing room or at a dinner table. Such a position is as ungraceful as it is adverse to the healthful enjoyment of equestrian exercise.

MISCELLANEOUS.

Fatal Results of Frightening a Child.

We have often remarked on the impropriety of exciting the fears of children for the purpose of more easily managing them. But never since we appeared before the public, have we heard of any thing so truly horrible as the following:—The subject being too delicate to allow of the mentioning of names, we shall avoid such an exposure, but at the same time, we pledge ourselves for the correctness of the narration. Some time ago a lady, in a certain town in Yorkshire, went out to a neighbor's house to take tea along with her husband, and left her little family to the care of her servants. In the course of the evening, she felt very uneasy, and being impressed with an idea that all was not right at home, she left her friend's house early.—On arriving at home, she found that her servants in the exercise of high life below stairs, had collected a social party. This she passed over without observation, and proceeding up stairs to the nursery, she was surprised at a terrific figure at the bottom of the bed of the youngest child, which was but three years of age. The fact was, that the nurse maid, finding the child not very ready to go to rest, and being loath to be disturbed in her evening's enjoyments by its crying, had dressed up and placed the figure alluded to at the bottom of the infant's bed, with a view of frightening it to sleep. The contrary effect, however, had been produced—the child had been horror struck and appeared to its mother with its eyes fixed, in an idiotic stare upon the image. Astonished and distressed, she rang the bell and then proceeded to take up the infant—but lo! it was a lifeless corpse; the fright occasioned by the nurse's folly, had been too much for the poor little innocent. In the extreme of fear, the pulse had ceased to beat—the vital spark had fled, and the mother was left to mourn in unutterable anguish, the credulity which had induced her to trust to such a servant, and the perfidy of the unprincipled nurse in whom she had confided. To add more is quite needless; and to describe the subsequent sorrows of the parent is impossible. It is a melancholy story, but is not more strange than true; and we give it with no other view than to place parents on their guard, with respect to those to whom they may entrust the care of their innocent and helpless offspring. [*Albion.*

Important Discovery—Or How to Kill Crows with New England Rum.

At length the ingenuity or good luck of this ingenious and lucky age has discovered *one* valuable use to which ardent spirits can be applied, viz. the clearing of our corn-fields of crows. The first experiments have proved quite successful, and are reported in the Wiscasset Citizen as follows:

Some lads in a neighboring town within a week past highly delighted with the new law giving a bounty of eight cents on crows, but thinking the bounty too low for powder and shot, took the following method of testing the law as well as the profits by killing crows with something more sure and deadly in its effects than powder and shot, viz. *New England Rum!!* They soaked some corn in a quantity of rum until it was saturated therewith, and then spread it in a cornfield infested with crows.—The boys were in ambuscade—the crows came on as usual by platoons, and commenced devouring the corn. In a few moments the young rogues had the satisfaction of seeing their sagacious foe so completely *corned*, to use their own phrase, as to tumble about in high snuff. They cautiously approached; but what was their surprise as they drew nigh to find them as drunk as David's sow, and in this situation they knocked 14 of them in the head in one forenoon! It is said the boys are still driving their profitable game; and *crow* prodigiously over their rapacious foe, who surrender to them without firing a gun.

The fate of the several mansions of Fonthill is curious. All perished by violence. The earliest mansion, *Fonthill antiquus*, the supposed seat of the Mervyns, was burnt down. Likewise the *second* Fonthill (*Fonthill redivivus,*) in the year 1755. Fonthill the third, or *splendens*, built at the cost of 240,000*l.*, was pulled down, and the materials sold for 9,000*l.* The celebrated abbey was then erected, and in 1825 the tower fell down.

THE FARMER.

Baltimore, Friday, June 4, 1830.

☞ As the sale of improved Durham Short horns at Powelton, on the 16th of this month, will be the first great public auction of improved cattle in this country, expressly for breeding stock, we are anxious to see what will be the result, and how far there is a disposition on the part of those who are able to give at once fair and remunerating prices for stock, which it has cost so many years, and so much of money and of judgment to bring to their present state of very high improvement, if not of perfection. Though much space was required to embrace the whole catalogue, we deemed it best to give it entire in one number.—It is probable that many subscribers to the American Farmer will become purchasers of these valuable animals now, or of their progeny hereafter, and would like to have the means of referring to their pedigrees with the least trouble.—Let each purchaser preserve the pedigree of the produce of such as he may buy, and publish a copy thereof, from time to time, in the American Farmer, with reference to the catalogue in this number, for the satisfaction of those to whom they may be sold.

It will be seen that owing to objections made by some, we have latterly omitted altogether the pedigrees, &c. of *horses*, but in *cattle*, every farmer is interested, and this catalogue of Col. Powel's, may be regarded as the foundation of a *herd book*, to be implicitly relied on so far—and from which pedigrees may be accurately deduced for ages to come, if those into whose hands the Powelton stock may fall, should be as careful, and systematic, as we know him to have been. Such a display of fine cattle will be interesting, even to those who are mere amateurs, and as such, if practicable, we shall endeavour to witness it.

☞ The exhibition of the *Pennsylvania Horticultural Society* closed on Wednesday evening, the 26th ult. A numerous crowd of visiters were attracted by the display of useful and ornamental plants, of which a Philadelphia paper expresses an opinion that "the means of equalling it in richness and variety are not to be found elsewhere on this continent." Among the plants were the *Coffee tree*, the *Tea* plant, the *Cinnamon* tree, the *Camphor* tree, the *Gum Elastic* tree, (Ficus elastica,) the *Banana*, the *Sugar Cane*, New Zealand flax (Phormium tenax,) the *Mahogany* tree, the Cream nut (Carolinea princeps,) the *Olive*, the Black Pepper tree, the Mango. Of the plants which were objects of curiosity, for their rarity, the Philadelphia Gazette mentions the Ixora coccinea, Gavetta Indica, Ficus australis, Ficus vestita, Pandanus odoratissimus, Testudinaria elephantopus, Cookia punctata, Metrosideros saligna, Strelitzia regina, Olea excelsa. The early potatoes, fine cauliflowers, large cucumbers, cherries, gooseberries, &c. &c. made no bad display by the side of these exotics. A specimen of excellent sewing silk, of domestic manufacture, bearing the boastful label of *Connecticut against the world*, was matched with an enormous bunch of onions, with the motto, *Pennsylvania against Connecticut.*

Brighton Markets.—*Monday, May* 24.

(Reported for the Chronicle and Patriot.)

At market this day, 192 beef cattle; including 11 unsold last week, unsold, 9, 14 pair working oxen, 18 cows and calves, 129 sheep and lambs, 49 swine, the remainder of the lot we reported last week.

Prices.—*Beef cattle*, extra, at $5.33 a 5.50; good $5 a 5.25; thinner $4.25 a 5.00; a small advance from last week, (say 17 c. per 100 lbs.) which makes the price average about the same as it has for four or five Mondays past, except last Monday. *Working oxen.*—Several sales, prices not ascertained. *Cows and calves.*—We noticed the sales of a number at $32, 24.50, 25.00, two at $27, and three at $30. *Sheep*—One lot of about 40 (sheared) were taken at $3, another of about 20 at $5, and another of 45, nearly all of which were *lambs*, and the first we have noticed this season, $2.25. *Swine.*—At retail, 6 a 6½ cents—one lot of 32 to close, at 5 1-8 cents—a few would find a ready market.

THE MARKETS.

There is some complaint among the farmers of the state of our markets. Few articles will command a high price.—*Wheat* is worth only 75 cents, and little or none coming in at present.—*Corn* 37½ cents.—*Tobacco* varies much according to the quality, and commands from 4 to 6 and $10—depending entirely upon *its condition.*—*Cotton* may be quoted at 9½ to 10 cents—scarce any in market. The next accounts from England may have an effect upon prices. Speculation is much at a stand—waiting for the next packets.—*Richmond Compiler.*

Savannah, *May* 19.

Cotton.—Since our last report the demand for Uplands has been quite limited and the sales will reach about 1500 to 1800 bales at from 9½ a 10¾, mostly at 9¾ a 10¼ cts. and about 400 bales of very prime, in large lots, at 10¾.

Rice.—This article is quite dull, and but very little in market. We quote 1½ a 2¼.

Flour.—Sales of Howard-street, have been made on the wharf at $5½.

Corn.—Is retailing at 50 cents.—*Georgian.*

Alexandria, *June* 1.

Wagon flour $4.45 a 4.48, from stores 4.50. Wharf flour 4.25.

Latest Foreign News.

Paris papers to the 26th April have been received at New York.

"*Toulon, April* 17.

Letters from Algiers say, that the Algerines have for a long time been aware of the preparations making in France against their regency. The Dey is determined to make the most obstinate resistance. Already several batteries have been erected on the west of the city, where it is supposed the debarkation is likely to be made. Another battery of triple rows has been raised on the east end of Algiers, with forty pieces of cannon. It was upon this position the vessel of Lord Exmouth was brought to bear in 1816. But then there were but fifteen cannon of small calibre."

"There are in the port of Algiers eighty gun boats, well-armed, but badly manned and commanded. Hussein Bey does not leave the fortress in which he had shut himself up."

A person who passed through Algiers on the 4th of April, is said, in a Paris paper of the 23d, to have given a very different account. He described the population as being in a state of great excitement, and the Dey as being in great danger. The Gazette de France give the following statement of the naval and land forces to be employed against Algiers:—

Naval Force.—11 ships of the line, 24 frigates, 6 corvetts, 25 brigs, 7 corvetts of burden, 9 gabares, 7 steamboats, 9 bombardos, making a total of 97 ships of war. The bomb ships to have 2 mortars of 12 pieces, and 4 guns. The ships are provided with stores for six months.

Land Force.—Bourmont, Commander in chief.—Three divisions comprised each of three brigades—20 regiments of two battalions—four companies of marine artillery.

The Augsburg Gazette of April 21, contains the following under date of April 15:—

"A French Messenger from Constantinople, brings the important intelligence of the acceptance of the London Protocol by the Sultan.

The Courrier de Smyrne states that the Porte, in order to counterbalance the commercial advantages gained by Russia has manifested a disposition to extend the same privilege to all the other powers, and by this equality secure itself from the danger brought upon it by the late treaty. Upon this principle it is, that the flags of Spain, Sweden, Naples, and Denmark, have been relieved from the duties and formalities hitherto required on passing into the Black Sea. The new sumptuary laws are enforced with great strictness, and are extended even to a limitation of the number of servants, so that the highest officers of the state cannot have more than four footmen.

Extract of a private letter of the 10th inst. from Lisbon:—"Secret societies are multiplying in Portugal and exist in a great number of the towns. Several individuals have recently been imprisoned on suspicion of being members of committees called the "Avengers of Legitimacy." It is confidently stated that Isabella Maria, sister of Don Miguel, has been acknowledged by these associations as Regent of Portugal. The troops of the line are so badly paid, that many of the soldiers have received long furloughs, on condition that they would relinquish a portion of their pay to those who remained on service, and at the same time would engage not to quit Portugal."

Havre Market—*April* 19.

Cotton.—The demand is small but prices are supported. The stock is about 40,000 bales. Sugar.—There is no stock, a vessel arrived from Martinique with 50 hhds. which were sold immediately. Coffee—The buyers are more cautious in their offers. Indigo—No change. Ashes have in general been calm—a large sale was made at a decline, viz—1200 bbls. New York pots, 1829, (27 2d and 8 3d sort) at 45f; 25 bbls. Pearls, 1829, at 47f 50. Rice, but little in demand. Tea—440 chests Souchong by the Mary from Philadelphia sold at about 1f 50 in bond. Quercitron—150 hhds. to arrive by the Plato from Philadelphia, were sold at 21f free. Flour, of the Maria Elizabeth's cargo from Baltimore 1000 bbls. were sold at 31f 75, in bond, 700 bbls. New York at 34f free, and 200 bbls. New Orleans at 33f 50 free.

Sales at Havre, April 23d.—245 bales Tennessee, Cotton 91c; 56 do Upland, 93½c; 290 bbls. pot Ashes (56, 2d and 25, 3d sort) 42f 50; 150 bbls. Pearls, 45f; 25 do 46f; 12 do 47f; 2 mil. Whalebone, 1f 90c; 966 bags St. Domingo coffee, 51½ a 58¾c.

April 24th—35 bales Upland Cotton, 75 a 79c; 30 tierces Rice, 23f 50; 110 bags Havana coffee, 51 7-8 a 53 3-8c; 211 bags St. Domingo do. 40 5-8c.

April 27th.—The arrivals of Cotton since the 17th, are 10,257 bales, of which 5765 from the United States. The sales are 1079 bales—of which 993 bales were United States. The market is very calm.

Prices Current in Boston, May 28.

Apples, best, bbl. 2.25 a 3.00. *Beans*, white, bushel .87 a 1.12. *Beef*, mess, bbl. 9.00 a —— cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.12 a 5.12; Genesee, 5.12 a 5.25; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .53 a 55; Rye, .65 a .67; Barley .67; Oats .35 a 40. *Hogs'-Lard*, 1st sort, new, lb. 8. a 8.50. *Pork*, clear, bbl, 16 a 17; Navy, mess, 12.25 a 12.75; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, —— Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .40 a .50; do. do unwashed, .20 a .30; do. three-fourths, washed, .35 *a* .40, do. half blood, .33 *a* .35; do. quarter, washed, .30 *a* .33; Native, washed .30 a .40; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, May 29.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .11; Alabama, 9 a .12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.81¼ a 4.87½; Canal 4.87½ a 5.12½; Balt. Howard st. 5. a 5.12½ Richmond city mills, —— country, 4.87½ a ——Alexand'a, 4.75 a 5. Fredericksburg 4.75 a —— Petersburg, 4.75 a .——; Rye Flour, —— a 3.25; Indian Meal, per bbl. 2.50 a 2.62½ per hd 12.25 a 12.50. *Grain*, Wheat, North, 1.00 a 1.03; Vir. 84 a 90; Rye, North, 62 a 62; Corn, Yel. Nor. .54 a 56; Barley, — a — Oats, South and North, .31 a .39; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.25 a 9.75; prime 5.50 a 6.25; cargo 4.50 a —— Butter, N. York, 12 a 15; shipping, .6 a 11; Lard, .7½ a .8; Pork, mess 13.25 a 13.87½; prime 9.25 a 9.50.

FARMING IMPLEMENTS.

The subscriber has now on hand, for sale, a supply of Grain Cradles and Scythes; also, Grass Scythes and Sneeds: both hung and separate—Hay Rakes and Forks, Scythe Stones and Rifles, Hoes, Spades, Shovels, Manure Forks, &c.—*all warranted prime articles:* together with his usual assortment of Ploughs, Cultivators, Wheat Fans, Straw Cutters, &c.

JONATHAN S. EASTMAN,
No. 36 West Pratt-street.

IMPROVED DURHAM SHORT HORNED CATTLE.

Mr. Powel's Stock of High Bred Short Horns, consisting of sixty males and females, either imported or bred by him, will be offered for sale at Powelton, near Philadelphia, on Wednesday, 16th of June, at 10 o'clock. These animals *have never been offered for sale, nor would they be sold if the owner were not about to leave America for some time.* WILLIAM HUGHS.

ALMANAC.

1830. June.		Sun. Rises.	Sun. Sets.	Length of days.	Moon. sets.
		H. M.	H. M.	H. M.	H. M.
Saturday,....	5	4 38	7 22	14 44	4 35
Sunday,......	6	4 38	7 22	14 44	rises.
Monday,.....	7	4 37	7 23	14 46	8 00
Tuesday,....	8	4 37	7 23	14 46	8 50
Wednesday,	9	4 37	7 23	14 46	9 35
Thursday,...	10	4 36	7 24	14 48	10 21
Friday,.......	11	4 36	7 21	14 48	11 06

Full Moon, 6th, 9h. 13m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is no change in the prices of flour, the wagon price of Howard street continuing at $4.62½ and of very dull sale. Wheat has declined a little, though best Susquehanna red is worth 92 a 93 cents. There are some very fine Ohio cattle in market, and the price of beef has advanced a little.

Tobacco.—Seconds, as in quality, 3.50 a 6.00; do ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 18.00.—Fine yellow, 20.00 a 25.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. The inspections of the week are 417 hhds Maryland and 36 hhds Ohio; total 453 hhds.

Flour—best white wheal family, $6 00 *a* 6.50—super. Howard-st. 4.68¾ *a* ——city mills, 4.50 *a* 4.62½ Susquehanna, 4.62½; Corn Meal, bbl. 2.25—Grain; best red wheat, .92 *a* .93; best white do. .90 *a* 95—Maryland red 80 *a* 90—Corn, white, .38 *a* .39; yellow .39 *a* .40—Rye, .— *a* .50;—Oats, .33 *a* —— Beans, .90 *a* 1.00—Peas, .65—Clover seed, 3.75 *a* 4.—Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, — *a* ——Flaxseed, 1.00 *a* ——Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .20 *a* .23; in bbls. 23 *a* ——Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .23 *a* .30—full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 130 *a* 140—water-rotted, 170 *a* 190—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. —— *a* 4.50 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.75 *a* 4.00—Bacon, hams, Balt. cured, .9 *a* .10—Feathers, .31 *a* 32—Plaster Paris, cargo price per ton, 3.75 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 5.00 *a* 5 50—Pine Wood, by the vessel load, 2.00—Oak, 2 50.

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Catalogue of Mr. Powel's Stock of improved Durham Short horned Cattle, imported, or bred by him, selected expressly for dairy purposes, by Mr. Coates, keeper of the English Herd Book, to be sold at Powelton, on the Schuylkill—On the Cultivation of the Hop plant concluded; on the wood proper to be used for poles; the size of the poles; pointing the poles; tying the shoots or vines to the poles; taking the crop; the operation of drying; bagging; stripping and stacking the poles; the produce; expense of forming new plantations; uses; diseases of the hop—The North Carolina Farmer, No. III. on the Cultivation of Tea—Grain—The Crops—Ladies on Horseback—Fatal results of frightening a child—How to kill Crows—Fonthill—Editorial, Col. Powel's Stock; Exhibition of the Pennsylvania Horticultural Society—The Markets—Latest Foreign News and Prices—Prices in the Boston, New York, and Baltimore Markets—Almanac.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the Southern Agriculturist.)

INDIGO.

Observations and Extracts on the Manufacturing of Indigo in Bengal: by Thomas Spalding, Esq.

"*Sapelo, June,* 1829.

The extract from the Asiatic Register, for the year 1809, (which follows) is only valuable as furnishing us with the amount of indigo exported from India in 1809, when it had reached its greatest point; and again in letting us see, that in India, as well as here, there are schemists who, not satisfied with doing well, are anxious to do better, and will recoil from improvements to ancient practices in their speculations. For this employment of copper vessels and hot water, is little else than a return to the earthen vessels and warm water, detailed by Col. Martine, as the ancient Hindoo mode.

"*Arts, Manufactures and Commerce.—Bengal. For the Asiatic Annual Register,* 1809.—*Indigo.*

"In the present state of English commerce, when the enemy is but too successful in closing the continental ports against us, it is particularly useful to show the advantages and resources which may be derived from our colonies, with a view to encourage efforts towards furnishing articles which may be derived from foreign and even hostile countries; supplies from whence are alike expensive and precarious. In the year 1786, Britain was almost wholly dependent upon France and Spain for indigo: the imports of this article from the East-Indies at that time, being only £57,000 in value. By subsequent encouragement, the supply from thence has annually increased to such an extent, that in 1809 the quantity was, in weight, 4,740,926 lbs. and in value £1,105,678. Thus the country is rendered independent of foreign power for a material so necessary to our manufactures.

" 'Sir—Enclosed is an extract of a letter, dated 8th of June, 1790, from Dr. Roxburgh, of Samulcotta, accompanying a specimen of indigo obtained from the leaves of a tree, native of the lower regions of the mountainous tract forming the Rajah Mundri frontier. This, in the estimation of Messrs. Harris and Haven, promises to become a valuable acquisition, and its value farther enhanced by the consideration of its rising in a sandy or sterile soil. That, from being perennial, (like the Sumatian species) and attaining the stature of a tree, affording a permanent stock and resource against the devastations and failure to which the cultivation of the ordinary annual species are, from their nature, exposed in disastrous seasons. From Dr. Roxburgh's description of this tree, it appears to be of the genus Nerium, and will, probably, be found on our south-west frontier. Of the seeds received, part have been sent to the collectors of Bhaagulpor and Gio, and some hundred plants are now raising in the Company's garden; so that we shall be enabled to avail ourselves of this additional resource, by a general distribution to the several indigo planters within the provinces, of which public notice may be given, to take place during the present season; by the month of August, we shall also be enabled to obtain a comparative estimate of its productive qualities, with the other species now in use. Should the avocations of administration permit an official examination of the situation and soil of the hilly tracts on which the residence of the collectorship of Hidjelli is situated, as described in the diary of the tour through part of that tract in the year 1780, submitted on the occasion of an imperfect attempt to examine its maritime productions, it will be perceived, that that uncommonly situated region is peculiarly adapted to the cultivation of this species of indigo. But I learn from the collector, that the greatest part of this province (although in extent between twenty and thirty coss) is productive of little or no revenue to the self-called possessor, the Ranni of ——; but I am wandering from the only subject which can entitle me to occupy the attention of the board—the report of a new species of indigo brought under notice by the discernment and researches of Dr. Roxburgh, and I crave pardon for a digression from the subject into which I have been involuntarily led. I have the honor, to be,' " &c.

"In consequence, a paper was printed in Calcutta by authority, containing a clear and satisfactory account of the method of making indigo from the plant indigo—*fera tinctoria,* as practised in Singatolla, near Malda. On St. Helena, and in the West India islands, there is a great abundance of soil and situation favourable to the culture of this tree, viz. hills and the inferior regions of mountains where there is little else than rocks, stones, and the most barren soil, such being the habitation where it is mostly found in Hindostan. It has been ascertained that the natives of Vizagapatam and Gangam, and other districts in Carnataka, have been long acquainted with the quality of its leaves.

"Dr. P. Rusole wrote Dr. Roxburgh from England, that among the papers of the late Dr. G. Campbell, who was a surgeon on the Madras establishment, and died of wounds received in the battle between Colonel Baillie's detachment and Haider Aali, in 1780, there was found mention of the tree, and that the natives made indigo from its leaves. In India, as has been already observed, the leaves begin to be fit for manufacturing in the month of April, but they have been found to yield a better colour in May or June, which is the hottest time of the year. (In the shade, the thermometer, during the heat of the day, is generally about 100°, and often rises to 115° if exposed to the sun. On the rocky soil where the Nerium grows, it ranges from 140 to 150°, an astonishing heat for vegetation!) About the end of August, the plant begins to draw towards a close for the season; the leaves acquiring a yellowish, rusty colour soon fall off, without being succeeded by others, or in a trifling degree till next season, so that with the plants in a wild state, the length of the season for making indigo therefrom in India, can only be reckoned at five months in the year. The leaves raised from seed in a garden, did not yield colour till several years old, and then in a small degree, and of a quantity inferior to the old wild plants in their natural soil; it is the same with the young plantations in Bengal. If the leaves are culled from the middle part of the shoots, the indigo is better than if they are taken promiscuously. Nothing like indigo could ever be extracted from the tender shoots of the Nerium, when deprived of their leaves, as is not the case with the common indigo plants. The leaves being collected, for instance, on the preceding day, are put into coppers, full but not pressed down, and then the vessels are filled with cold, hard, clear water, to within two or three inches of the brim, which space must be left, to allow for the bulk enlarging by heat, fully as much as in the common indigo vat by fermentation. The fire is then lighted, and must be maintained rather briskly till the liquor acquires a deep green colour, when viewed in the vessel; but if taken up and poured out, it will appear of a pale, bright, greenish yellow; the leaves will begin to assume the same colour, and the heat of the liquor will be from 150 to 160 degrees of Fahrenheit's scale. The mass must be constantly stirred, or the bottom will be over-scalded before the surface is ready; the motion, moreover, serves to expel the fixed air which forwards the operation. The fire must be withdrawn or suffered to die away; and all the liquor should be drawn off through a hair cloth into the agitation vat, where it must, while hot, be agitated in the common way for half an hour, then it must be mixed with from 1-70th to 1-100th of strong purline water, prepared in a contiguous cistern which is to produce granulation and precipitation. The supernatant liquor is then let off, and the rest of the process conducted like that of the common fermented indigo. If the process has been properly conducted, the liquor will run of a Madeira wine colour, and the produce of indigo when dry will average about one pound from every 250 pounds of the green leaves; but this proportion will vary according to weather and season. The operation on a large scale is susceptible of being performed three times a day, as the scalding requires only about three hours, and the agitation, &c. not more: so that by the time the former is completed the fecula of the preceding brewing is nearly ready for removal from the agitation vat into a small cistern for mixture and precipitation. The liquor is finally withdrawn by scuppers, and the fecula put into bags to drain. M. de Cossigny, in his treatise on indigo, recommends washing the moist fecula with warm water, in which a small quantity of vitriolic acid has been mixed Marine acid may answer the same purpose, but as it is weaker, a larger quantity must be used. Nitrous acid has not been found to answer as well, and it rendered this indigo porous. Any quantity of Nerium indigo can be produced in the districts already mentioned, where 250 works, each making 4000 pounds in the season, would give a million for the whole, which may be fairly valued at two rupees or five shillings per pound. The preceding calculation is by no means exaggerated, and to the extent of the Nerium district on the coast of Coromandel, may be added the Malaba coast; information having been received that Dr. H. Scott, of Bombay, had discovered the same plant upon the island of Salsett.

"The foregong observations lead to recommending to our colonial manufacturers, not only to turn their attention to Nerium, the preparation of which may be carried on alternately with that of common indigo, the seasons for each being different, but moreover to adopt the scalding process generally in preference to that of fermentation. Besides, the superior quality of the indigo so obtained, that process presents others, the following comparative advantages:—1. The produce is larger. 2. The health of the labourer is not endangered by the effluvia of putrid miasma. 3. The heat expelling most of the fixed air, renders a small degree of agitation, and little of the precipitant necessary. 4. The operation is susceptible of frequent repetition. 5. The indigo dries quickly, without acquiring a bad smell. 6. Indigo so prepared has not the flinty appearance common to fermented indigo; but in softness and levity is equal, or even superior to Spanish Flora.

"The useful publication from whence this account of Nerium has been abridged, contains also the description of a species of Asclepias, from the leaves of which the Bunnah people are said to extract a green dye; being a larger twining, shrubby plant brought from Pegu to the botanic garden in Calcutta, in 1795, by Dr. Buchanan, which Dr. Roxburgh names Asclepias tingens. Observing, however, that his experiments to obtain the colour above mentioned, failed of success, possibly from want of sufficient information. Some other communications from that scientific person, contained in the same book, and relating to medical productions of India, are very valuable, and will deserve republication in this Register; but the requisite space being wanting, they are reluctantly omitted."

I have lately received a report upon indigo, by Mathew Carey, of Philadelphia, in which, he gives a Mr. Dalrymple, now in New-London, (whom he states to have been a great maker of indigo on the Ganges,) as the informer of Mr. Gibbs as to the manufacturing of indigo from dried leaves, by warm water in copper vessels; such a process may, in the small way, have existed at Madras, in making indigo from the Nerium, the tree discovered by Dr. Roxburgh, to give a colouring matter from its leaves; but is not the process in Bengal, as you will see from, finally and lastly, three extracts from the letters of Bishop Heber. The first, describing a succession of brick cisterns, (brick or mason cisterns being used because wood cannot be obtained) in which the indigo is macerated or steeped; and the two last, giving the character of the persons so engaged, as being low and worthless in the extreme, and subject to being transported at the will of the civil or military chiefs of their district.

And here I would observe, that kiln-drying is only used because indigo is made in India during the rainy monsoon, when the heavens above and the earth beneath are saturated by water; but no such kiln-drying is necessary here.

Narrative of a Journey through the upper provinces of India, by the Rt. Rev. Reignald Heber.—"We moored at about half past six, after a very hot day, and a fatiguing one to the poor men, at a place called Bunybunya, a desolate sandy spot, but which promised good air. On landing, we found that beyond the immediate vicinity of our birth, the country was really pretty. A considerable indigo work, with an European bringalow, was at a little distance, the owner of which was gone to Kishnagm, but which afforded us an amusing and instructive occupation in walking round the works, and seeing the manner in which indigo is made, by maceration in water in a succession of brick cisterns, and at last by kiln drying to evaporate the moisture from the dye."

Extract of a letter from Bishop Heber, to the Hon. Charles Williamsloynn, March 1, 1825.—"The English in the upper provinces are, of course, thinly scattered, in proportion either to the multitude of the heathen or the extent of territory. They are, however, more numerous than I expected, though there are very few, who are not in the civil or military employ of government. The indigo planters are chiefly confined to Bengal, and I have no wish that their number should increase in India. They are always quarrelling with and oppressing the natives, and have done much in those districts where they abound, to sink the English character in native eyes. Indeed, the general conduct of the lower order of Europeans in India, is such as to shew the absurdity of the system of free colonization which W——— is mad about."

To the Dean of St. Asaph.—"But the power of deportation is, I am convinced, essential to the public peace. Many of the adventurers who come hither from Europe, are the greatest profligates the sun ever saw; men whom nothing but despotism can manage, and who, unless they were really under a despotic rule, would insult, beat, and plunder the natives without shame or pity. Even now many instances occur of insult and misconduct for which the prospect of immediate embarkation for Europe is the most effectual precaution or remedy. It is, in fact, the only control which the company possess over the tradesmen and ship builders in Calcutta, and the indigo planters up the country. Believe me, my dear sir, ever your obliged and affectionate,

"R. CALCUTTA."

There was one other extract from Asiatic publications, which I wished to make for you, but have sought in vain for a paper, which I very distinctly remember to have read three or four years ago, and which gives the details of the present Bengal process, which, in no material manner, differs from the instructions contained in General Floyd's letter, except in taking the mud or fecula which has subsided to the bottom of the beater, after the water is drawn off, and instead of straining it through bags, carrying it to copper boilers, where the redundant moisture is evaporated without wastage, and without permitting the residuum to go into fermentation, which might impair its quality.

This copper vessel is all we have to add to our ancient apparatus. If we take care, that the water we employ is pure, we may expect to make indigo as good as the Bengal. Our river swamp-lands, in many points, resemble the river lands of Bengal, and will give two crops or cuttings in the year, instead of one; because the monsoon prevents the second in India. The water, too, of our rivers, after settling, will be quite equal to the water of the Ganges, for the manufactory, while the whole apparatus, for the making in this country of 12,000 or even 15,000 lbs. of indigo, will cost not more than $1200, instead of $6000, as given in the Bengal report.

As to the prejudice against lime, no indigo was ever yet made without it; the operation of beating, would, without lime, more radically mingle substances contained in the water, and not separate them; in all human probability, a vegetable fermentation would take place, which might even change and destroy the colour. The lime too, is employed in so small quantities, that it certainly could never have constituted any portion of the residuum found in indigo by Dr. Cooper; for water holds suspended in solution, an hundred times the quantity of lime that is employed in this operation. But if any doubt remain, you may see in the Annual Register, for the year 1811, a communication from a distinguished dyer, to the Bath Society of England, upon the growing and preparation of the delicate blue from woad, that lime in very considerable quantities is employed, and is absolutely necessary to prevent a fermentation, which would destroy its colour. The quantity there directed, is many times greater than is employed to separate the fecula of indigo from the water in which it is suspended.

This communication is made to you, with the hope that General Floyd's letter which, I am quite sure, contains all the instructions which are necessary for the profitable culture of indigo in our southern states,) may be allowed to pass on to your readers, with all the weight and consideration that it merits.

THOS. SPALDING.

(From the Columbia Telescope.)

COTTON.

Extract of a letter from General D. R. Williams to Messrs. Follet and Smith, Petersburgh, Virginia.

Society Hill, 13*th May*, 1830.

Gentlemen,—Your favour reached me in due course of the mail. I have not replied earlier, because as our oil mill was so nearly finished, I preferred to delay the acknowledgment, till I could speak from facts, resulting from my own experiments; and although these have not been carried out as far as I propose, they are quite enough so, to satisfy my own mind fully. In relation to your "cotton seed huller," I am gratified to be able to say, it performs all that you have promised for it, and moreover, is so easily comprehended, ours has been set up and put in operation by persons who never saw one before. Our oil mill is after the Dutch mode, of pestle and wedge. Our grinding stones are not quite four feet in diameter, and twelve inches thick. The cotton seed kernels are so much easier to grind than flax seed, these stones, small as they are, may easily grind for two pair of pestles and wedges. That the whole process is simple and not difficult to understand, you will infer, when I tell you, no person concerned about ours, except myself, has ever seen an oil mill before. You are aware that I attempted last winter to enlist the public generally, in favour of your invention, by a few pieces in the Columbia Telescope, signed "A Cotton Planter." These were founded on information, with which I had been favoured. You may be certain of the satisfaction I feel in having tested by actual experiment, that all those statements were perfectly correct. In relation to the uses to which cotton seed oil may be applied, it is almost superfluous to include *painting*, as that fact is fully settled: the same process which is indispensable to make flaxseed oil dry, produces the same effect with this. There are good judges who pronounce it to have a better body and therefore superior: considering to what extent the adulteration of linseed has been carried, owing to the decrease of material, it is not hazardous to say the cotton seed oil *ought* to be preferred. Without resorting to any of the patented methods of refining oil, I have succeeded, by a very simple and cheap process, to refine our soil, so as to answer all the purposes of the best sperm oil, in our cotton factory. Our superintendent, Mr. Hopkins, has been very careful to compare it with as good sperm oil as I ever saw, and is entirely satisfied of its equality with it. In its present state, we find it burns very well by a little attention to the wick; by other means than those I have as yet used, I am satisfied, it will be much superior to the best animal oil for lamps, it being entirely inodorous, a circumstance of great importance, in establishments requiring a great many lights. The residue of the kernels, after the oil is expressed, called oil cake, is excellent for stock generally; particularly for milch cows and pigs. If your invention could do nothing more than convert cotton seed into wholesome food for stock, it would still be, in my opinion, of infinite importance to the whole southern country. The planter who makes four bags of cotton to the hand, will now with your aid, have in addition to his grain, forty bushels of good food also per hand, more than equal to that quantity of oats. In New England it is preferred, pound for pound, to oats. No man is so dull, as not to see that the consequence to his *people* and his *purse*, must be alike agreeable, it being a self-demonstrable proposition, there is no scarcity, where milk and pigs are abundant. The only use to which we can now apply cotton seed, is for manure.

The same quantity fed to stock may, with the ordinary care that every planter is competent to bestow, elaborate ten times the quantity. Thus much for facts: you will not consider me an enthusiast, when I add, I have not the slightest doubt, that the time will come, when owing primarily to your invention, cotton seed oil will also enter largely into the food of man. From these considerations, I earnestly hope you may receive a very handsome remuneration for your discovery: more you ought not to ask. Do not, like Miller and Whitney, attempt to "kill the goose for the golden egg." A fair price, the community will be willing to give, more will produce for you trouble, vexation and probably defeat. Let me also advise you not to despair of a just reward, because it may be slow to reach you: All communities change their habits slowly, ours is at present prejudiced against inventors. My best days have been spent in attempts to improve the agricultural and mechanic arts; except a few implements of husbandry, I have no reason yet to believe I have in its opinion added any thing to society, but in two instances. I was the first person who attempted the use of mules, certainly in the southern states, if not in the U. States, for the purposes of agriculture. If I had then been as easily laughed out of countenance, as most young men, I should have given it up in despair, for I was ridiculed by old and young. I have lived to see the only limit to their use, is, the circumstances of the planter. I first attempted to dam out the inundations of the Pee Dee, and consequent thereon, had well nigh been deprived of a seat in congress, because it was thought, any man who believed "he could keep the fresh from his low grounds, was too big a fool to go to congress." Now there is nearly as much swamp land reclaimed from freshes in South Carolina, as on the Mississippi. These facts may seem to encourage you, for however slow the community may be in giving its confidence, it does not always refuse it.

Respectfully yours,

DAVID R. WILLIAMS.

(From the Southern Agriculturist.)

On the General Management on a Plantation in the Middle Country: by A PLANTER.

Dear Sir,—If the following, on the general management of a plantation in the middle country, is thought worthy of a place in your columns, it is at your service. I have delayed sending it before, from the doubt, whether its details were not too much an every day's business, and too trite to be interesting, and somewhat by the appearance of presumption, in undertaking to give directions where there are so many more competent to instruct. It must be obvious to the least reflecting mind, that the same course of treatment would not be proper for all soils, nor for the same soil in a very wet or a very dry season; indeed, so variant are the soils, and the seasons acting on them, that it is scarcely possible to give directions, however general, that will apply to them: and none are here given, but such as should be moulded in the application by a sound judgment, and in such way I desire to be understood. I would set a crop for provisions and four bags of cotton to each full labourer, by planting seven or eight acres of cotton, and from three to six of corn, besides small grain, and would put ploughs into the hands of one third of the workers, of whom one half should be skilful, as I would provide mould-board ploughs, (the best of which that I am acquainted with, are those set on shovel stocks) large shovels from 9 to 12 inches, colts-foot and straight-tooth harrows, skims, &c. The cotton to be hoed over once in twelve or fourteen days, the corn twice in the season, and both cotton and corn to be ploughed over in twelve or fourteen days. The ploughs to go twice or three times in the rows, and do from three to six acres per day, the hoes an acre each, as is usual. The number of ploughs on a well-stocked plantation, where you design to cultivate corn for sale, should be enough to attend all the corn crop without the occasional assistance of those which precede the hoes in the cotton. I would commence the winter preparation for this crop on the first of January, or earlier, if the cotton is all gathered in, by putting cotton in all the corn and small grain lands of the preceding year, and corn into the cotton lands, as they both benefit by the exchange. I would pull up and lay the corn-stalks uncut into the alleys where they grew, and with the hoes list or draw all the grass, grass-seeds, weeds and surface soil from the beds on them, a mould-board plough follow and covering with two cuts close to them, so as to cover better, and to raise the earth high as it is to be the top of the future bed; the same is to be done with all the other grassy lands intended for cotton. On clean lands I would lay the cotton-stalks in the centre of the alleys, and not use the hoe, but cover with two cuts of the plough; there is not much advantage gained by listing with the hoe on clean ground; far otherwise where there is much growth in the ground, and if you do not use the hoe, you double the task: the stalks are better laid with the roots in the same direction, for the greater convenience of ploughing, but it is not very material. I prefer not to run a furrow to list in, because as the grass and other growth cannot so easily be got to the bottom of the furrow, it becomes mixed with the ploughed up earth, and part is on top, and as the same earth cannot be returned from whence it came, the list is made too large, and is not effectually covered by the plough. Where you design to run your rows in a contrary direction to those of the previous year, or you change their distance apart, it is neater to have lists, and you must, of course, run a furrow, and deep enough to go to the bottom of the old bed, where you cross it. The foregoing is the usual winter preparation; but where you wish to save time for any other purpose in the winter, you may, on your light and dry lands, pull and lay the cotton-stalks in the alleys, and not hoe-list, if not grassy, and so leave it till planting; then two cuts of the mould-board plough thrown on it, makes a bed, which the hoes following immediately chop, and the planters following them, drop the seed and cover with the foot. I think there is more moisture and more certainty of a good rise of cotton in this way. The first working of this cotton is done by splitting up the ridge or old bed at one cut of the broad shovel, the hoes earthing it as is usual. About the beginning of March, other furrows are to be added, so as fully to plough out all the alleys or baulks, and the hoes make the beds: where cloddy, as is generally the case in our swamps, they are to be reduced by the straight-toothed harrow. It is, perhaps, best to make them up with the hoe, as they can better regulate the height and width according to the land. You may make them up with two cuts of the triangular harrow, or by one cut of the rounding harrow, on good ground well thrown up with the plough, or after the plough alone. The rounding harrow you will have an idea of, by supposing two rows of teeth shewing on the under side of the felloe of a wheel. I believe there is a description of this implement in General Williams' very excellent practical letter in your second volume. Your lands for corn are prepared by threshing the cotton-stalks, and by cutting up your corn-stalks into three or four pieces, and by throwing into the alleys two cuts of the mould-board plough; you plant on these two furrows or the old bed, as you see best, after a single cut of a broad shovel across them. I prefer the old bed.

All your lands intended for cotton, should be listed either by hoe and plough, or hand and plough, of which, the latter is by one-half the most expeditious, and it should be done as early in the winter as the necessary provision for your stock will permit; it would be much better if you could keep them out of your fields altogether; they do more injury by their hoofs, than they ever compensate by all other means; every mouthful they take from the field, is so much manure, already placed there for you, and stiff soils they poach in wet weather. The cattle-pen is the proper place for them; the stock should be small where the resource is the fields.

I have thus tried, Mr. Editor, to give you what I consider the usual preparation for a crop of cotton, and corn on stiff and light lands. The making and the application of manures ought to be the subject of another communication. My next, must plant, and try and make the crop, in the actual performance of which I am now closely engaged. A Planter.

April 17, 1830.

(From the New York Farmer.)

Benefits resulting from the total disuse of Ardent Spirits in Farming operations.

Mr. Editor,—This is the second year I have had the pleasure of perusing your valuable paper; and although you treat much on Horticulture, yet I am happy to acknowledge myself much benefited as an agriculturist; I could wish every farmer in this section of our country, would avail himself of your labors.

Knowing that the cause of temperance is one in which you take a deep interest, and that you are desirous of having those facts that tend to encourage the disuse of intoxicating liquors in that important class of the community—the cultivators of the soil, I take the liberty of giving you an account of my own experience.

For three years, I have strictly adhered to the resolution of entire abstinence from the use of ardent spirits. During this time I have been exposed to all weathers both by day and night, and my health has never before been so good. After trying the experiment on myself for one year, I came to the conclusion that it was my duty to prevail on those in my employ to discontinue the use of the poison. All consented but one man, who had formed so strong an attachment for his three drinks a day, that he left my employ, and will, I have reason to fear, die a drunkard.

Last year I laid out my plan for much work in the way of building and repairing, besides the necessary labor on a farm of 160 acres, with a large stock of cattle. When I made known my determination to have it all done without strong drink, I was told that I should not be able to find men to perform in season the various labours required; but the reverse was the fact. I had from three to nine men in constant employ, every one of whom had been in the habit of drinking moderately before, and yet I do not believe a single glass of spirits was drunk on the place. Some of them in bargaining with me, were fearful they would not be able to go through the labour of haying and harvesting, without some of the strong stimulus. They were, however, willing to make the experiment, and the result was highly gratifying both to myself and them. In the very hottest of the season they were working in salt meadows, and found they could stand the heat and labour better than those working in meadows near them, who used ardent spirits. My crops were very abundant, my cows, twenty in number, were milked by the men. Their work was necessarily early and late, and yet it was always well done; nothing was neglected. They were pleasant, cheerful, no noise, no disputing, seldom any one lost a meal of victuals, and their health was remarkably good. It was a pleasure to see men always in the same temper, and perform their labor with so much good humor, all the result of abstaining from ardent liquors, the tendency of which is to put both body and mind out of tune. They drank freely of coffee, tea, hop-beer, molasses and water with ginger, milk and water, and some cider, which, however, was not as pleasant and acceptable as the others. When wanted, they had something to eat between their three regular meals. My crops were all got in without damage or accident, and in good season; not a horse nor an ox was injured, and scarcely a tool broken.

At the expiration of the season, I had the pleasure of paying my men all their wages, not any amount worth naming had been previously called for, although there were many ways to have spent their money. By not drinking, they had no temptation to frequent a tavern of much resort that was very near my farm.

At the approach of winter, it was necessary to retain but two men. The rest were discharged. On the opening of the present spring, they all signified a wish to return, declaring their decided preference to labor, where liquor was not allowed. I will now state more particularly the individual cases.

In March, 1829, a young man, 23 years of age, of good wholesome appearance, called on me, wishing to be hired for the season; I was willing to give him his price, $15 per month; but the idea of doing without rum rather staggered him; but, said he, if your other men can get along without rum, I can do as much as they. On the 1st of April he commenced, and continued six months without losing a single day. At the expiration of the six months, I hired him for two months longer at $12 per month; and when these were finished, I called him in for a settlement, and found he had drawn on me, during the whole time, only $3 for a pair of pantaloons, and $11 to lend to a younger brother going to the Western country. I was owing him the round sum of $100 which I offered to pay, but he preferred taking my note for it on interest. He left me with my recommendation, and was immediately employed by a gentleman in the state of New York, who was much in want of a steady man to drive a team in the vicinity of Albany. In this gentleman's employ he was exposed, through all the winter, to cold and storms, without drinking a single glass of ardent spirits, and yet his health has never been better. This spring he returned to me, and I have hired him for eight months at $14, and consider him as cheap a man as I can employ. It is now his intention to save money sufficient to buy him a farm in the Western country.

I have another young man with me, whom I engaged in April, 1829, for two and a half months, but have continued him in my employ to the present time. Although he had formerly been in the habit of taking grog whenever he wanted, yet he has wholly abstained while with me. In settling with him in April, 1830, I found he had drawn on me for only five dollars, which were spent for articles of clothing. I paid him $150, which he has lent on interest to a brother to enable him to pay in part for a small farm recently bought.

Last fall I hired an Irishman, 28 years of age, who had been in this country seven years, had accumulated no property, and was in the practice of taking his allowance of grog. He was to have $8 per month through the winter. He continued to labor faithfully through the cold season without the aid of any of the burning liquors. I have this spring engaged him for eight months at $12. He says he never felt better nor so strong for spring work as he now does. Whenever he sees his fellow countrymen, he urges them to let rum alone. I find him to be a careful and faithful man, spending none of his money except for clothing, and endeavoring to save sufficient to buy him a piece of ground.

The above, sir, are sufficient to show you the good effects that entire abstinence has on young men. I could state some equally and even more beneficial on men of family. I have seen families of neglected wives, and squalid children, suffering under the most distressing poverty, regenerated and born anew, simply by having the husband and father dash the poisonous cup from his lip. The heart of the mother has beat for joy to see her children decently clothed, and mingling with those of her neighbors in the Sunday school.

From the experience I have had, I am confident that all kinds of farming operations, and at all seasons, can be accomplished far better without than with ardent spirits. A steady farmer, who lives within a few miles of me, last season hired two men, during haying and harvesting. He purchased *thirty-six gallons of rum*, the greater part of which those two men drank, and yet almost every day they were murmuring because they did not get more. This farmer labored hard himself, and yet his work did not go on well. I told him the monster, rum, retarded all his operations; that I had three barns containing nearly one hundred tons of hay, which was all got in without trouble, and in time; and that my men worked hard, and yet were satisfied.

In conclusion, I am happy to say, that many of my neighbors have come to the determination to have all their farming done without the use of spirits. I truly hope that your readers will imitate the example, and thus they will benefit themselves and their fellow creatures. W. K

New-Haven County, Con.—May, 1830.

Shape and Properties of the Bull.

There is a grandeur about this animal when at full maturity, and in good condition, which is very striking; but as some noble looking animals have very bad points about them, it will be as well for the benefit of persons who have not much experience on the subject, to give a brief account of what are deemed to be distinguishing points in a perfect animal.

From two to seven years old he is in his prime; after that period he begins to decline in vigor; his back should be perfectly straight and broad on the loins; the tail falling gracefully from the curve of the rump. well knit together, but rather fine than coarse: the head not coarse boned, but symmetrically formed, bearing all the marks of strength and good breeding: the horns fine and long, rather than thick and short; above all, perfectly clean and polished, having no rough scaliness about the roots: the forehead ample, bearing fine curly hair, indicative of his nature: the ears hairy, yet of a fine texture; the eyes black and commanding: the muzzle tapering, and the neck gracefully connecting the head and the body, bearing all the strong indications of his sex, without being in any way coarse and leathery: the body should be well formed, deep without being pot bellied, and rising from the just position of the ribs, into a round barrel like shape: the hide mellow, and covered with abundance of short curly hair: the legs well separated to sustain the carcass, and clean boned. A bull contradistinguished from one thus formed, will have a large pot-bellied body, coarse, scaly, thick horns, bony, unseemly head; short, thick muzzle: a neck covered with a heavy leathery skin, extending to his fore legs, and these, with the hinder ones, long-jointed, and thick boned: the skin will cleave to the body, and together with the ears and tail, will want that fineness of texture which denotes good breeding.

A bull calf intended for breed, should receive the most particular care: his mother should have the greatest abundance of food, and should suckle him till the fall. For this purpose, after he is four weeks old, he should be kept in a little paddock or enclosure, where there is plenty of fine grass, and his mother led into him three times a day: a little water should be occasionally given to him in times of drought; he should also be taught to drink from the first, as it may be necessary to raise him by hand in case of accident; by attending him in this manner he will soon acquire habits of docility. In the winter a comfortable birth should be provided for him, as much as possible to himself: he will soon learn to eat turnips and boiled potatoes, which should be given to him in moderate quantities at a time, as also his hay, which should be fresh and early cut: he should be watered at least twice a day with moderately cold water, it being very injurious to animals to let them drink only once in the twenty-four hours, and then from a cold freezing source. Where it can be conveniently done, it is best to let animals drink when they choose. When fine weather returns, he should be conducted back to his old paddock, or a place equally convenient; and if it is thought proper to breed moderately from him the first season, the cows should be turned in to him one by one, as they come into season. A bull calf of that age, should only be permitted to serve one a day, and not more than ten or a dozen the first year. Some experienced men are of opinion, however, that the stock degenerates which is produced by so young an animal. As it respects yearling bulls in general, this may reasonably be supposed true; but animals raised with the attention which has just been detailed, attain such size and condition at fourteen months old, that there can be no doubt of their possessing that degree of puberty which warrants a moderate use of it. The difference of climate betwixt this country and Great Britain makes a sensible odds as to all regulations in these matters.

It is the general practice, I believe, in this state, to exact no other service of bulls than breeding, and this does not seem accordant with a just economy of things. When bulls are reared in a proper manner, they are generally extremely docile, and since those particular services ought never to be required of them after the month of July, there probably exists no good reason why they should not be moderately worked as well as oxen. The habit of letting them run in pastures after this season only encourages the ferocity of their nature, and makes them dangerous, when they ought to be useful. In Pennsylvania it is very common to use bulls for labour, and the experiment has been successfully tried in other countries; they are considered equally as strong, and more hardy than oxen, resisting heat better, which is of great importance in this hot climate. I have seen a bull worked throughout the summer in the same team with an ox, by a professional stone wall layer, who informed me that the bull was always equal to his work, when the ox would begin to loll and give indications of failing under the heat.—*Memoirs Board of Agriculture.*

Pasture Land for Horses.

If horses are put to grass on a townland, five miles to the west of Rathkeale, county Limerick, at the end of two months the caronate ulcerates, the horny hoof separates gradually from the sensitive foot, and falls off. The horse must be horned, and the void created by the opening of the exterior of the horny substance kept constantly filled with cotton or fine tow. When the hoofs fall off, the horse gets perfect new ones, free from sand, cracks, ringbones, corns, quittors, and narrow heels—a desideratum in farriery.

[Dublin Evening Post.

HORTICULTURE.

Pennsylvania Horticultural Society.

The second splendid exhibition of the Pennsylvania Horticultural Society was held on the 25th and 26th of May. It was successful in every point. The visiters were numerous and highly respectable; and entire unanimity prevailed with regard to the magnificence of the collection of plants and flowers, the felicity of the arrangement, the taste and liberality of the contributors and managers, and the general beauty and usefulness of such a spectacle.

The names of the liberal contributors of plants, flowers, fruit or esculent vegetables, to this exhibition, are Messrs. M'Aran, D'Arras, Smith, Parker, Hibber, Pierpont, Pepper, Chauncey, Clapier, Carr, D. & C. Landreth, Maupay, Longstreth, Pratt.

We cite the following articles of the collection merely as a specimen of what was most useful, rare, or *recherche*.

Dragon's-blood tree; date palm; arrow root; tea; coffee, in flower and fruit; cinnamon; pepper; banana; sugar cane; phormium tenax (New Zealand flax) affords the strongest vegetable fibre known; mahogany; mango; ficus elastica (affords the gum elastic, and is remarkable for the beauty of its foliage;) the cork tree; olive; species of eucalyptus, melaleuca, leptospermum, metrosideros, banksia from New Holland; numerous species of aloe, crassula, mesembryanthemum; the casuarina of the South Sea islands; calceolarias and the gloxinia from the Andes; the strelitsia, phylicas, ericas, and the singular testudinaria, from the Cape of Good Hope; a great variety of cacti, among which those recently sent from Mexico, by Mr. Poinsett, are very interesting. Plants of our own country conspicuous—yuccas, magnolia macrophylla, chamœrops palmetto and hystrix, azaleas, stewartia, dionœa, &c. styrax. Among tropical plants the beautiful pandanus odoratissimus, justicias, pothos lanceolatus, melastoma trinerva, carolinea princeps, correa alba, cookia punctata, ixora cocinea, laurus persea, maranta zebrina, myrtus tomentosa and pimento, begonias, hedychium, thunbergia, ficus vestita and benghalensis, pavetta, mimosas, &c.

The Pennsylvania Horticultural Society, have, on this occasion, accomplished not only the end of making known the treasures, taste and liberality which exist in this city and its vicinity, in their department, but that of an accession of colleagues anxious to minister directly to their laudable purposes. Indeed, we know not how men of adequate means could resist the temptation of becoming associates, when they saw so brilliant an earnest of the manifold good to be achieved. The friends or patrons of pure morals and refined feeling do not all, perhaps, heed the degree in which merits of the kind would be promoted by the diffusion of a taste for botany, and generally by a wide-spread fondness for the pursuits and objects of horticulture. In contributing in any mode to those effects, we should regard ourselves as acting in the identical and proper direction of aid emulously lent to Bible, tract, education, or other societies of religious benevolence. We therefore wish, on every ground, that the motto of the Pennsylvania institution may truly be—*Florescet quotidie magis*, or in other words of Cicero, *gratia, auctoritate, beneficiis in urbe floret.*

We should not forget to add to this rapid and imperfect notice of the exhibition that, though thousands of persons visited it and remained more or less time in the Hall, and the crowd was great in the evening, no one of the articles,—not a stem nor a flowret,—suffered the least injury from any hand or any attrition. This circumstance is only one of a number of examples, which we could cite, of the spirit and habit of order which mark the population of Philadelphia.—*Nat. Gazette.*

If you would have the state prosperous, you must make the men of principle, the principal men.

Benefits from a Taste for Gardening.

I think nothing contributes more to the sobriety, comfort and cleanliness of a laborer, than a taste for gardening, when it can be instilled, and which, I think a proprietor ought to promote by every means in his power. I have seldom known a labourer who was fond of and kept his garden neat, whose house and family also, were not so, and who did not spend his leisure hours with them, and in his garden, instead of in the alehouse. I have generally found them fond of gardening; but, for want of sufficient knowledge, they often get disgusted by their not succeeding to their wishes. [*Eng. pa.*

RURAL ECONOMY.

RULES FOR MAKING GOOD BUTTER.

If you have four or five cows, it is best to churn every day; and by no means less frequent than every other day. If you cannot churn every day, throw into the cream when gathered a handful of nice salt. In very warm weather, when milk sours soon, put two heaping table spoonfuls of salt in every pail of milk, before straining. The quantity as well as the quality of the butter is greatly improved by this method. If you have ice put a small piece into every pan of milk, and also into the cream when you churn. If you have no ice, put the cream into a pail, and hang it into the well, twelve hours before churning. In the warm season, cream should be skimmed as soon as it is in the least sour, and in the coldest weather milk should not stand more than thirty-six or forty-eight hours. The utmost care should be taken to keep every article used in making butter perfectly sweet, by frequent and thorough scalding.—*Journal of Humanity.*

Cæsarean Operation Performed on a Mare.

Fairfield, S. C. May 24th, 1830.

J. S. Skinner, Esq.

Thinking it may be interesting to the readers of your paper, I give you for insertion, the details of an operation which I lately performed on a fine mare. I purchased her about the first of April last, in consequence of her being in foal by the celebrated horse Bertrand—her pelvis was deformed from a dislocation at the hip joint, the head of the bone passing downwards and inwards—notwithstanding this deformity, (at the time of purchasing,) I was under the impression that she might have the colt safely, in this however, I was disappointed. About ten days after I purchased the mare, she was taken in labour about six o'clock in the evening—I saw her immediately, and the fore feet of the colt were then delivered—in this situation she remained all night—I saw her again early in the morning, and finding that no alteration for the better had taken place, I came to the conclusion that if left to her own resources she must die—I therefore determined to try and save the life of the colt, and perhaps that of the mare also, by performing the cæsarean section. Previous to commencing the operation, I resorted to manual assistance; but finding that moderately used, it was of no avail, I proceeded with the operation.

The fore feet of the mare were made fast together with a rope, and the hind feet also, a pine pole was then passed between her fore legs, and extended between her hind legs also, an assistant was then placed at each end of the pole, and directed to turn the mare on her back—assistants were also placed at her feet to hold them steady. I then commenced the operation, by making an incision just below the umbilicus, and extending it downwards towards the bag for about 12 or 14 inches, I then made a lateral incision, commencing about the middle of the first, and extending it on the right side for about 8 or 10 inches—the uterus was now fairly exposed, and I immediately made an incision in it sufficient to get out the colt, which I effected in a very short time; the colt was dead. I immediately disengaged the placenta, took it out, and stitched up the incision which had been made in the uterus. The uterus in this time contracted considerably, and ceased to bleed. The external incisions were also immediately stitched up; the whole operation not occupying more than thirty minutes, and the loss of blood not much exceeding half a gallon.

This operation was performed between ten and eleven o'clock in the morning; the mare appeared much relieved after it, and in the course of the evening took feed and drink; but died the following night. I have been thus particular, Mr. Editor, in giving you the circumstances of this operation, because it is a case of some novelty, and that other persons meeting with similar cases may be induced to try the same experiment; for from the circumstances, of this case, (although unsuccessful,) I am satisfied, had the operation been performed at an earlier period, I would certainly have saved the colt, and perhaps the mare also.

M. D.

MANAGEMENT OF HORSES.

The following hints concerning the management of horses, were lately published in the New-York Enquirer, under the signature of William Carver, author of the "Practical Horse Farrier." Mr. C. says, "I presume none of my fellow-citizens will doubt but I have some knowledge of the structure and economy of horses, after years of extensive practice."

A great number of fine horses are destroyed in this country by those that have them placed under their care. It is a custom to wash horses with cold water, sometimes after hard driving, in the hottest time of the year, by which practice I have known many of them take the lock-jaw and die; others have been foundered by only washing their legs and feet; it stops all perspiration and produces violent fevers. No gentleman in England will permit his horses to be washed; the horse is not a water animal; he wants the particular, fostering hand of care, when placed in a domestic state.

"Another bad practice prevails:—the grain is thrown into the manger without sifting, and sand or gravel being heavier than the grain, it will settle down on the stomach of the horse. A few years past I brought a stone from a horse which was believed to have been formed by thus feeding. I placed the stone in Peale's museum: It is as large as a goose's egg, and cased around like a cocoa nut shell.

"I would suggest a better plan for building stables, than that in use at present. All stables should be well ventilated, so as to admit a constant circulation of fresh air, without which horses are continually breathing on their lungs, foul putrid matter. No stall should be less than five feet wide, as the horse, like man, wants to stretch himself when lying down to rest; many horses have died in the night, by being confined in narrow stalls, and being tied with a rope round their necks. All horses should have headstall halters, with a rein on each side that should run up and down with blocks, in pulleys, on each side of the stall.—The mangers should draw in and out like a drawer in a bureau or desk. By being thus fixed as I have described, the horse will rise with ease; but on the old plan, the horse, by struggling to rise, often gets his head under the manger, and is found dead in the morning. The hay-rack should be placed in front of the stalls, and not on the side.

Cure worse than the Disease.—At the Secondaries' Office last week, a jury was summoned to assess damages in an action brought by a farrier, or veterinary surgeon, according to the fashionable phrase, for curing a horse's knee. The charge was £49 16s 6d. One of the witnesses thought the horse, when cured, might be worth £10; the jury estimated his worth at £4! They gave a verdict for £29 5s. 5d. [*Eng. pa.*

INTERNAL IMPROVEMENT.

Bituminous Coal from the West Branch of the Susquehanna.

This is a new article in our market, and is now regularly for sale at Captain Harman's wharf, near Spruce street, on the Schuylkill. Our smiths, manufacturers, and others, who have been in the practice of using Virginia and Liverpool coal, would do well to make trial of this variety, and ascertain what may be its true character compared with the others. We venture to predict that it will be found much superior to the Virginia coal usually brought to this market, and in every way suited to the purposes of the workers in iron; and we flatter ourselves that all the wants of Philadelphia, as respects this kind of coal, will soon be supplied from the mines of our state.

The introduction of the Susquehanna coal into our market is attributable to the *Union Canal*, by means of which, a constant supply may be kept up. The price of it at Middletown, the western end of the canal, is 14 cents per bushel. The cost of transportation from thence, including toll, is 9 cents per bushel, and the whole cost when delivered in Philadelphia 23 cents per bushel.

The price of Virginia coal in Philadelphia of the best quality is 28 cents per bushel. Upon this statement the advantages are manifestly in favour of our own state, and such as must almost insure success to this branch of our coal trade.—*Price Current, Philadelphia.*

UNION CANAL.

Account of articles that passed on the Union Canal from the 7th to the 14th of May, in 115 boats.—43 empty boats passed during the same time to Middletown, for loading.

	tons.	cwt.	qrs.	lbs.
1849 barrels of flour, weighing,	176	2	.	.
10,390 bushels of wheat,	259	15	.	.
390 barrels of whiskey,	48	14	2	.
2680 bushels bituminous coal,	89	7	.	.
539,200 feet of lumber,	539	2	.	.
292.000 shingles,	146	5	.	
550 barrels of fish,	70	14	.	.
2000 bushels of salt,	52	14	.	.
Iron,	7	.	.	.
Merchandize,	132	6	3	27
Plaister,	118	.	.	.
Sundries, consisting of cement, butter, eggs, rags, leather, soap, lard, &c.	178	1	3	.
Tons,	1818	1	0	27

Camden and Amboy Rail-road.

We understand that at a meeting of the Directors of the Camden and Amboy Rail-road, held at Mount Holly, on the 15th inst. it was decided that active operations should be immediately commenced, and that proper measures were adopted to procure the surveyors, &c. necessary to a decision upon its location. It is understood from the communications directed to the Board by the Engineers to be employed, that they may be expected to be on the line on or before the 1st of June. We are well persuaded of the sincerity of those who have in charge the execution of this important work, and trust that their acts will soon dissipate the unfounded rumours which have been circulated, that it was not their intention to carry into effect the objects of the act.—*Camden Star.*

Through the Columbia Canal from the 1st October, last to 1st May, there have been shipped 54,331 bales of cotton, against 44,641 bales same time preceding year. With what has been hauled to Granby in consequence of low river, about 15,000 bales, and what is on hand, and expected, about 7000, the total shipment from Columbia will amount to 75,000.

[*Georgia Courier.*

LADIES' DEPARTMENT.

(From the Journal of Health.)

PROPER MANAGEMENT OF THE HAIR.

Under the ordinary circumstances of health, in conjunction with temperance and regular exercise, the only safe and effectual means of preserving the hair and of promoting its growth and beauty, is the frequent use of the comb and brush, and regular ablution.

It will be readily perceived, by a reference to the structure of the hair, as pointed out in a former number, that whatever has a tendency to impede the passage of the fluids by which it is nourished, from the root along the tube in the centre of each hair, must necessarily prevent its proper growth—render it thin, and deprive it of its soft and glossy appearance. There can be little doubt that this is the effect, to a certain extent, of the practice of twisting the hair from its natural position, and of plaiting or firmly braiding it, pursued, in obedience to the dictates of fashion, by most females. The injurious consequences of such modes of dressing the hair can only be obviated by a daily resort to the comb and a hard brush, which, by disentangling, restores it to its natural direction, and freeing it from every restraint, enables it to receive a due supply of its appropriate fluids. The growth of the hair is not, however, always impeded by artificial means: this may result, also, from allowing it to become entangled and matted together—a condition to which it is extremely liable from its peculiar form. Hence, under all circumstances, frequently combing and brushing it through its whole length, is absolutely necessary to its proper preservation.

Independent of the good effects of these operations in rendering the hair pervious to the fluids which rise from its roots, they facilitate its development also, by freeing the scalp from accidental impurities, facilitating the circulation through its vessels, and thus enabling the hair to perform freely its functions.

Another means of promoting the growth of this structure and insuring its permanency, is by frequently cutting it.

It must be very obvious that when kept short, its fluids are less liable to be obstructed in their passage than when the hair is long—it being difficult in the latter case to preserve it straight and permit it to have its natural flow. It is in early life, particularly, that frequent cutting will be found highly advantageous.

We admit that fine *flowing* tresses are among the most attractive ornaments of female beauty, and would therefore be the last to recommend their proscription. When, however, the hair becomes thin and irregular, or its beauty is otherwise impaired, we know nothing better calculated to restore its proper growth than cutting it short. We may also remark, that frequently cutting the hair prevents it from splitting at the ends and growing forked—the occurrence of which, so common in young persons, gives it an extremely inelegant and ungraceful appearance.

In children, keeping the hair short is a circumstance of no little importance—and should not from any light consideration be neglected. Their health, and we conceive in some respect their beauty also, is prejudiced by a contrary practice. Nothing is more common than to see a luxuriant head of hair accompanied in children by paleness of complexion, weak eyes, and frequent complaints of head-ache. Upon this subject we find the following excellent remarks in a little work entitled "Advice to young mothers—by a grandmother"—we recommend their attentive perusal to every parent.

"The hair in children should be cut short until they are eight or nine years old—as the cooler the head can be kept, the less danger there is of many maladies peculiar to that part of the body especially water on the brain. Besides there is good reason for believing, that children who have a great quantity of hair, are those most liable to eruptions, as scald head, &c.: it is at least certain, that in them eruptions are very difficult to remove. The trouble, also, of keeping long hair sufficiently clean, and the length of time necessary for this purpose, is often a cause of much ill humour and many cross words, between children and their attendants, which it would be better to avoid."

"Mothers whose vanity may be alarmed, lest repeated cutting the hair for so many years should make it coarse, may be assured they have no cause for this apprehension, provided the hair be kept constantly brushed. I have never seen softer, finer hair than on girls who have had it kept short—like that of school boys—until they were in their tenth year."

When there is any tendency to sores or eruptions on the head of children, fine combs are very apt to promote them. There is no doubt that the heads of young persons, which are never touched by them, may be preserved much cleaner, by strict attention, than such as are scratched and scraped every day. If any dirt appears on a child's head, which a brush will not remove, that particular part should be rubbed with a towel, and soap and water—but in general, the brush will be found quite sufficient to keep it perfectly clean. The seldomer, indeed, a fine comb is applied to the head of an infant, the better; when, however, those of ivory, tortoise shell, or bone are used, the greatest care is necessary lest they wound the skin and produce a sore, or by unduly irritating it augment the production of the scurf they are often intended to remove.

MISCELLANEOUS.

MINERAL FUSIBLE CEMENT.

[A friend has obligingly furnished the following document for publication in the Farmer, deeming the subject of it of great importance to agriculturists. It is proper to state that this cement has been in use for some years on the continent of Europe, particularly in Sweden and Denmark, whose engineers have recommended it to their governments. The following document gives the results of experiments instituted by the Board of Ordnance of England:]

(COPY.)

London, R. E. Office,
August 25, 1828.

To Gen'l. Mann:

Sir,—With reference to my letter to you of the 18th inst. on the subject of Mr. Fitz Louitz's Mineral Cement, I have the honor to report, that I have since made several experiments with it, from the results of which I have reason to think very favourably of its adhesive qualities, and of its rapidity of setting, in which it is very far superior to the best Roman cement that I have ever met with.

2. The cement produced by Mr. F. Louitz, was in a solid mass in a cask; it was afterwards melted in a caldron over a brisk fire, and used when in a fluid state at a boiling heat.

(N. B. Not quite a boiling heat, P. V.)

3. The extraordinary adhesive powers of this material, will be understood by the relation of a few out of the many experiments made on this head.

1st Experiment.

4. Two pieces of flat iron, each ¼ of an inch thick, and 4 inches square, were united by a joint of 1-8 of an inch thick of Mr. Fitz Louitz's cement—when the cement was cold, a weight of seven and a half hundred weights was applied to separate the iron plates, but without success—until a pan of lighted charcoal was placed near them, when the cement by becoming warm lost part of its power, and the joint gave way.

2d Experiment.

5. A brick was placed flatways against a vertical board, to which it was united by Mr. Fitz Louitz's cement; another brick was united to the first by the same materials, then a third, and so on, until they extended as far outwards as twenty from the board, when one of the central bricks broke in two, but all the cement joints remained perfect.

6. These were very strong tests of the superiority of this over the Roman cement, in the quality of adhesiveness; for the Roman cement will not unite metals or bricks to wood, and the greatest extent to which I have heard of bricks being built out horizontally, without any other support than that afforded by an upright wall at one end, was not above half what was effected with Mr. F. Louitz's cement, the full power of which I was prevented from ascertaining in these experiments, by repeated failures in the bricks, which proved to be weaker than the cement.

3d Experiment.

7. We also joined together pieces of wood, much more firmly than if they had been glued; and we connected pieces of glass with iron, stone, and bricks, thereby proving, that it might be used not only in brick work, but also in the operations of carpentry, and glaziers, stone masons, and ironmongers' works.

4th Experiment.

8. Mr. Fitz Louitz formed a large wooden box, using his cement only to connect the five boards of which the box was composed, and he lined the inside of the box with a thin coat of the cement; it was then filled with water, and found to be perfectly water tight.

5th Experiment.

9. I caused a cistern, about five feet cube, to be formed with brick work united by means of this cement, and another of the same dimensions, in which Roman cement was used; both were then filled with water, and no leakage took place in either.

10. These two last mentioned experiments are conclusive in favour of the power of Mr. Fitz Louitz's cement, to exclude moisture.

11. He does not disclose what are the component parts of his cement, but it is evident, that one of the principal ingredients is rosin, and that it is inflammable, therefore its use cannot be general.

12. For instance, it would be objectionable in chimneys, or other situations subject to considerable heat, and I have doubts how far it might be suitable for warm climates; but I think it might be very advantageously used in situations not exposed to heat, where expense is not an object, and where it is desirable that the work should have extraordinary strength, or attain the full strength immediately.

13. The following are the situations in which I conceive this cement might be used with great advantage:

1. For the abutments of a series of arches.
2. For the piers for the support of heavy gates, and works of a slender description, but requiring all the strength that could be obtained from a perfect union of parts.
3. In damp foundations.
4. For tanks.

For the joints of stone copings, by which iron cramps and lead would become superfluous.

5. For the bedding of the two upper layers of bricks or tiles on the tops of casements.
6. To unite iron or wood to each other, or the stone or brick work.

14. I have no reason to doubt that the properties of the mineral fusible cement are lasting, but it would not be prudent to introduce it to any great extent in government works, until there has been some experiments of that quality. I would therefore suggest, that 20 or 30 casks of this cement should be purchased from Mr. Fitz Louitz, for each of the principal ordinance stations at home, in order that the commanding engineer may have opportunities of trying its qualities, and reporting thereon at the end of six or twelve months.

15. The cost of mineral cement is much greater than that of the Roman cement, and the labour em-

ployed in using it is also greater. Brick work performed by the former would cost about thirty-six pounds per rod reduced, and with the latter only twenty pounds.

In this calculation it is supposed that the Roman cement is mixed in the usual manner with sand, and that the mineral cement is used in the state delivered by Mr. Fitz Louitz, who does not advocate any material being mixed with it—but I am inclined to think it might be used with a portion of sand, without essentially impairing its strength, and by this means a saving would of course be produced.

16. I would propose, with the Board's permission, to build the piers for the new iron gates at Croydon Barracks, with the mineral cement, instead of Harwick cement, as I think it would be a very fair test of its qualities; and I would recommend that some pieces of those timbers which are the most subject to decay under ground, be coated with the mineral cement, to ascertain its powers of preserving them.

I have the honor to be, &c. &c.
(Signed) J. M. F. Smith.
Commanding Royal Engineers.

[The Mineral Fusible Cement is prepared in casks and packages of various sizes, accompanied by directions for its use, and may be obtained of Francis Gurney Smith, No. 27, South Front street, Philadelphia.]

(Items from late English papers.)

Use of Plumbago instead of Oil in Clocks and Chronometers.

The gradual change of oil, when applied as a lubricating medium to those parts where friction takes place in clocks, watches, and other fine mechanical arrangements, has induced numerous persons to endeavour so far to purify the oil as to prevent or retard the injury occasioned to the going of the machine as much as possible. Mr. Herbert appears to have overcome this difficulty all at once, by discarding the oil altogether, and using instead of it well prepared plumbago. He first prepares the plumbago by repeatedly grinding and washing it over, by which means the gritty particles that occur, even in the best black lead, are removed, and which, if allowed to remain, would neutralize every advantage the pure plumbago is found to give. This done, the prepared substance is applied with a camel-hair pencil, either in the state of powder, or mixed up with a drop or two of pure spirit of wine. It readily adheres to the surface of a steel pivot, as well as to the inside of the hole in which it runs, so that the rubbing surfaces are no longer one metal upon another, but plumbago upon plumbago. These surfaces, by their mutual action, speedily acquire a polish only inferior to that of the diamond, and then the retardation of the machine from friction is reduced almost to nothing, and wear and tear from this cause are totally prevented.—An astronomical clock of Mr. Herbert's own making, of which the pivots and holes and teeth of the escape wheel had been covered on their rubbing parts with fine plumbago *fourteen years before,* was taken to pieces by a committee of the Society of Arts, and examined; the surfaces of plumbago were found to be for *the most part unbroken and highly polished,* and neither the pivots nor sockets appeared, on examination with high magnifiers, to have undergone the *slightest degree of wear.—Transactions of the Society of Arts.*

Snuff-taking.

If any mode of taking tobacco be more objectionable than another, we should certainly deem it to be in the form of snuff, when taken in an immoderate degree. Under these circumstances it is apt to derange the stomach so as to bring on disease. By constant use, the stimulus of snuff is lost, it diminishes gradually until it be no longer felt. It is then that we would ask what pleasure or benefit can be derived from uselessly attempting to irritate a callous surface. It is then that snuff-taking may truly be called a beastly habit. The immediate effect of a pinch of snuff, in quickening the imagination, is like that of a glass of spirituous liquor in giving cheerfulness; it is false fire in both; it is most perceived by those who are less accustomed to these things; and use wears it off. Those who are habituated to snuff, feel no such effect from it; and for the rest, all that deserves consideration is, that we are sure, by this, snuff may affect the brain. In some persons its excessive use evidently blunts the apprehension, and by a long course brings on a condition of absolute stupidity, a torpor of the faculties, and, as it were, a lethargy of the mind. To be brief, the miserable consequences brought on by a long and habitual course of inveterate snuff-taking are only to be obviated by relinquishing the custom.—*From a little work entitled Health without Physic.*

Importance of Chemistry.—You will allow that the rendering dyes insoluble in water, by combining with them the astringent principle of certain vegetables, is a chemical invention, and that, without leather, our shoes, our carriages, our equipages, would be very ill made; you will permit me to say, that the bleaching and dying of wool and silk, cotton and flax, are chemical processes, and the conversion of them into different cloths is a mechanical invention; that the working of iron, copper, tin and lead, and the other metals, and the combining them in different alloys, by which almost all the instruments necessary for the turner, joiner, the stone-mason, the ship-builder, and the smith, are made, are chemical inventions; even the press, to the influence of which I am disposed to attribute as much as you can do, could not have existed in any state of perfection without a metallic alloy; the combining of alkali and sand, and certain clays and flints together, to form glass and porcelain, is a chemical process; the colors which the artist employs to frame resemblances of natural objects, or to create combinations more beautiful than ever existed in nature, are derived from chemistry; in short, in every branch of the common and fine arts, in every department of human industry, the influence of this science is felt, and we may find in the fable of Prometheus taking the flame from heaven to animate his man of clay, an emblem of the effects of fire in its application to chemical purposes in creating the activity and almost the life of civil society.—*Sir Humphry Davy's Last Day of a Philosopher.*

Gigantic Eel.—If the Americans excel in sea-serpents, the inhabitants of New South Wales carry all before them in the magnitude of their eels. The following paragraph is from a recent Hobart Town paper:—"It may not be generally known that there is a gigantic species of eel peculiar to this island, found in most of our rivers, particularly where they form ponds or still water. A gentleman who was lately bathing in the South Esk, in one of those beautiful ponds formed by that river, after swimming about some time, sat down to rest himself, as he thought, on the round trunk of a tree, lying about a foot under water. Presently the log seemed to glide from beneath him, and he saw it turn its head and eyes towards him, and swim round him several times, moving its body in a zigzag serpentine direction. It was about a foot or fifteen inches in diameter, and about twelve or fifteen feet long, of a dark greenish colour."

Mr. Arrowsmith, of Dobell-bar, placed in his oven a bottle in which he had deposited some copperas to melt, to make ink blacker. He forgot to take it out at the proper time, and the bottle burst in the oven, blew the door out, broke the hinges, and removed the oven from its situation. One of the children narrowly escaped death, not having removed one minute from the door of the oven before the explosion took place, and it was then cut on the neck by a piece of the bottle.—*Bolton Chronicle.*

Mysterious Sounds.—Dr. Arnott states that the crew of a ship sailing along the coast of Brazil, far out of sight of land, heard distinctly, a ringing of bells, whenever they stood on a particular place on the deck. Months afterwards it was ascertained that at that time the bells of the city of St. Salvador, one hundred miles distant from the ship, had been ringing on account of a great festival. The sounds it seems were reflected from the concave surface of a wide spreading sail, which brought them to a focus as a concave mirror converges the rays of light to a point.

Thickness of a Soap Bubble.—Newton succeeded in determining the thickness of very thin laminæ of transparent substances, by observing the colour which they reflect. A soap bubble is a thin shell of water, and is observed to reflect different colours from different parts of its surface. Immediately before the bubble bursts, a black spot may be observed near the top. At this part the thickness has been proved not to exceed the 2,500,000 part of an inch

Formation of Shot.—It is the cohesive principle which gives rotundity to grains of shot: the liquid metal is allowed to fall, like rain, from a great elevation. In its descent the drops become truly globular, and before they reach the end of their fall they are hardened by cooling, so that they retain their shape.

Capillary Attraction.—A weight being suspended by a dry rope will be drawn upwards, through a considerable height, if the rope be moistened with a wet sponge. The attraction of the particles composing the rope for the water is, in this case, so powerful, that the tension produced by several hundred weight cannot expel them.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 11, 1830.

☞ As we have it in our power, it is deemed proper towards our readers to remove, by an authorised assurance, the impression that we have reason to believe may prevail to a certain extent; that since his advertisement, of the sale of his improved short horn cattle for Wednesday next, Col. Powel may have disposed of some of his choice animals at *private sale.* So far from that being the fact, he has refused numerous applications for private purchase at high prices; reserving all on the catalogue for fair, open, public competition; whatever sacrifice it may involve in particular cases.

☞ **Chili Onions.**—J. P. Donaldson, Esq. just arrived from Huasco, Chili, has presented to the Editor of the American Farmer, an onion, which he brought from Chili, measuring sixteen inches in circumference, and weighing twenty ounces and a quarter. It had began to decay, and had lost without doubt an inch in measurement, and three or four ounces in weight. Mr. D. had other onions in a state of perfect preservation. What is most remarkable, is the fact of these onions having been preserved during so long a voyage. The onions are evidently of the Portugal kind, and are very mild. Mr. Donaldson informs us that they preserved watermelons, taken on board at Huasco, till they arrived at the latitude of Charleston, when the last one was cut and proved to be excellent.

☞ **Sheep Shearing.**—A beautiful specimen of wool has been sent us by R. K. Meade, Esq. of White Post, Va. as a fair sample of the product of a flock of sixty-two young sheep. The average weight of wool per head, was nine pounds and one fifth. We are promised a full report of this shearing.

Latest Foreign News.

Intelligence from Liverpool, to the 28th April has been received at New York. The state of the King's health appears to have engrossed public attention; it is generally understood that the disease of the king is *dropsy*, and if so its fatal termination is almost a matter of course.

The cotton market continued depressed. The sales on the 26th were only 1000 bales. Prices rather yielding and heavy. The returns of wheat, April 27th, were 3,453 qrs.—average price £3 3s. per imperial quarter.

Liverpool Corn Exchange, April 27.

Our imports since last Tuesday have been on a more limited scale than for some weeks; they are still, however, fully equal to the demand, and the stocks of the principal articles continue to accumulate. The wheat trade has remained generally very heavy and prices have receded, particularly for the inferior descriptions, of which our stocks chiefly consist. Indian corn continues to meet a retail sale at full prices, and the stock is now in a very small compass. The holders of bonded wheat and flour have shown more inclination to sell those articles; but there are at present no buyers of either, unless at prices much below our nominal quotations. A parcel of flour offered by auction on Saturday, was withdrawn, the highest bid not exceeding 27s. per 196 lbs.* There was only a moderate attention of dealers at this market, and the business effected in wheat was on a very confined scale on a decline of 2d on the finest descriptions, and fully 3d per bushel on other qualities; a parcel of very superior Baltic, which arrived yesterday, was disposed of at 10s 9d per 70 lbs., duty paid. Flour was very heavy of sale, and 1s per sack cheaper. Wheat, English, white, old, per 70 lbs. 10s 3d a 10s 8d; new, 9s 6d a 10s 3d; red, old. 10 a 10s 6d; new, 9s 4d a 9s 10d. Indian corn, per 480 lbs. 40s a 42s.

Prices Current in Boston, June 4.

Apples, best, bbl. 2.25 a 3.00 *Beans*, white, bushel, .87 a 1.12. *Beef*, mess, bbl. 9.00 a —— cargo No. 1. 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.12 a 5.25; Genesee, 5.12 a 5.25; Rye, best, 3.62 a 3.87. *Grain*, Corn, bu. .53 a 55; Rye, .65 a .67; Barley .67; Oats .35 a 40. *Hogs'-Lard*, 1st sort, new, lb. 8. a 8.50. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.25 a 12.75; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, —— Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .40 a .50; do. do unwashed, .20 a .30; do. three-fourths, washed, .35 *a* .40, do. half blood, .33 *a* .35; do. quarter, washed, .30 *a* .33; Native, washed .30 a .40; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, June 5.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .11; Alabama, .9 a .12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .13 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a 5.00; Canal 5.12½ a 5.37½; Balt. Howard st. —. a 5.12½; Richmond city mills, —— country, 4.87½ a ——Alexand'a, 4.75 a 5. Fredericksborg 4.75 a —— Petersburg, 4.75 a .——; Rye Flour, —— a 3.25; Indian Meal, per bbl. 2.50 a 2.62½ per hd 12.25 a 12.50. *Grain*, Wheat, North, 1.06 a 1.08; Vir. — a 90; Rye, North, 63 a 65; Corn, Yel. Nor. .54 a 56; Barley, — a — Oats, South and North, .32 a .39; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8 00. *Provisions*, Beef, mess 9.25 a 9.75; prime 5.75 a 6.25; cargo 4.50 a —— Butter, N. York, 12½ a 15; shipping, .6 a 11; Lard, .8 a .8½; Pork, mess 13.25 a 13.87½; prime 9.50 a 9.62½.

Prices Current in Philadelphia, June 7.

Bees-wax, yellow .21 a .22; *Beans*, bushel $.75 a .80; *Beef*, mess 10.00 a —— prime 8 a 9, cargo 7; *Butter*, No. 1, 6 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11½, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 4.62½, fine, 4.25 a —— Rye 3.25 a —— Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat .93 a .97 Rye 48 a 52, Corn l. c. white, .36 a .37, l. c. yellow, 38½ a .40, u. c. round, 44 a 45; Oats .28 a .35; Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia 9 a 9½, Western .9 a .9½; *Hemp*, 210 a 220; *Lard*, .- a .7; *Oil*, linseed, 73 a —; *Pork*, mess, 13.50 a ——, prime 11.50 a —; cargo 10. *Rice*, 2.25 a 2.50; *Tobacco*, Kentucky .4 a .7, Vir. .4 a .5½. *Wool*, common washed lb. .25 a .30, half blood .37 a 40, three quarters blood .40 a .45, full blood 47 a .50.

Prices Current in Charleston, May 31.

Cotton, Sea-Island, .24 a 30. Stained .12 a 16. Santee, .19 a 22. Main, .21 a 23. Upland, inferior and common .9 a .10¾ fair to good, .10 a 10¾, prime to choice, .10½ a .11. *Rice*, prime, $2½ a .2¾. Inferior to good, do. $2 a .2.37½. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5 a .5.37½. *Corn*, North Carolina, .46 a .48; Maryland, .46 a .48. *Oats*, .38 a .40; Peas, 65 sales. *Hay*, prime Northern, .87½ a $1. *Whiskey*, Philadelphia and Baltimore, hhds. .24½ a .25; bbls. 25½; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .00; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork*, Mess. .13 a 13½; Prime, .10¾ a .11, scarce. *Bacon*, .7½ a .6½ cents; Hams, .9 a 10; Lard, 8. *Butter*, Goshen, .18 a .20; inferior, .8 a .10.

HARVEST TOOLS,

AND OTHER AGRICULTURAL IMPLEMENTS.

SINCLAIR & MOORE, Pratt street wharf, have on hand, and are manufacturing, Grain Cradles, the best quality Scythes and materials are used, and no doubt is entertained of their giving satisfaction to the purchasers. Also their superior Wheat Fans, the rapidity with which they clean, and the good order in which they put the grain for market, renders them desirable implements to agriculturists—also Warren's Patent Threshing Machine, calculated for one or two horses.

In store a general assortment of improved Ploughs, Cultivators, Harrows, &c. &c. Seed Buckwheat, Turnip seed of very superior quality, of the present year's growth, will be ready for sale in one week.

FARMING IMPLEMENTS.

The subscriber has now on hand, for sale, a supply of Grain Cradles and Scythes; also, Grass Scythes and Sneeds: both hung and separate—Hay Rakes and Forks, Scythe Stones and Rifles, Hoes, Spades, Shovels, Manure Forks, &c.—*all warranted prime articles:* together with his usual assortment of Ploughs, Cultivators, Wheat Fans, Straw Cutters, &c.

JONATHAN S. EASTMAN,
No. 36 West Pratt-street.

IMPROVED DURHAM SHORT HORNED CATTLE.

Mr. Powel's Stock of High Bred Short Horns, consisting of sixty males and females, either imported or bred by him, will be offered for sale at Powelton, near Philadelphia, on Wednesday, 16th of June, at 10 o'clock. These animals *have never been offered for sale, nor would they be sold if the owner were not about to leave America for some time.* WILLIAM HUGHS.

ALMANAC.

1830. June.	Sun. Rises.	Sun. Sets.	Length of days.	Moon. rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 12	4 26	7 24	14 48	11 50
Sunday,...... 13	4 35	7 25	14 50	morn.
Monday,..... 14	4 35	7 25	14 50	0 31
Tuesday,.... 15	4 35	7 25	14 50	1 05
Wednesday, 16	4 34	7 26	14 52	1 46
Thursday,... 17	4 34	7 26	14 52	2 30
Friday........ 18	4 34	7 26	14 52	3 10

Moon—Last Quarter, 13th, 8h. 41m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—There is little change in the prices of produce since our last. Flour remains steady, and moderate sales are making at our quotations. Beef on the hoof has declined a little, and first rate would not command over $5.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do· ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 18.00.—Fine yellow, 20.00 a 25.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. Cuba 18 a 20 —St. Domingo, 8.00 a 15.00. The inspections of the week are 526 hhds Maryland and 46 hhds. Ohio; 7 hhds. Kentucky; 2 hhds. Pennsylvania, and 2 hhds. Virginia,—total 583.

Flour—best white wheat family, $6 00 *a* 6.50—super. Howard-street 4.75——city mills, 4.50 *a* ——Susquehanna, 4.62½; Corn Meal, bbl. 2.25——Grain; best red wheat, .92 *a* .93; best white do. .90 *a* 95—Maryland red 80 *a* 85—Corn, white, .40 *a* .—; yellow 41 *a* .——Rye, .45 *a* .46;—Oats, .33 *a* ——Beans, .90 *a* 1.00—Peas, .65—Clover seed, 3.75 *a* 4. —Timothy, 2 50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, — *a* ——Flaxseed, 1.00 *a* ——Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10——Whiskey, hhds. 1st p. .20½ *a* .–; in bbls. 23 *a* ——Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $215 *a* 220; Country, dew-rotted, 120 *a* 125-water-rotted, 145 *a* 150—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No 1, 7.00—Herrings, Susquehanna No. 1. bbl. —— *a* 4.50 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.75 *a* 4.00——Bacon, hams, Balt. cured, .9 *a* .10—Feathers, .31 *a* 32—Plaster Paris, cargo price per ton, 3.75 *a* —— ground, 1.25 bbl.– Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.50 *a* 5.00—Pine Wood, by the vessel load, 2.25—Oak, 2.75.—Hickory, $4.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy.

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* Letters received some days ago stated the highest bid to have been 25s. 10d.

AGRICULTURE.

RECLAIMING SWAMP LANDS.

Copy of a letter from J. S. Skinner to Robert Sinclair, with the answer of the latter.

I wish, my worthy friend, that when you have leisure you would give me your ideas and experience on converting low swampy grounds into meadow lands. You are aware that on almost all the large farms south of the Chesapeake, there is a great proportion of swamp land, grown up in briars and bushes, and occasionally overflowed, that might be made valuable for tillage or for grass. Suppose yourself to be a young farmer, owner of such land, how would you proceed with it? How and at what season would you begin? I shall feel thankful for your suggestions, as well for the benefit of a young friend in Virginia, as for that of the readers of the American Farmer. Command me when I can render you a like service, and oblige, your's truly, J. S. Skinner.

May 17th, 1830.

Respected Friend John S. Skinner:

In reply to thy request to give my ideas of the best and most expeditious method of converting swampy land, partly grown up with brambles, and occasionally overflown with tide or fresh water, such as is common south of the Chesapeake bay in meadow lands.

Such lands are often so differently circumstanced as to render it difficult to lay down any particular rule or line of procedure, but I hope the following practical researches may prove in a small degree useful to some of the very numerous readers of thy valuable paper. If the land is so wet as to require draining before it can be grubbed or ploughed, cut open ditches in such places as will effectually receive and assist the water to pass off freely; rain falling in the adjoining high grounds, settle and pass through them and spring out at or near their junction with the bottom land. In order to collect this water into a ditch before it passes further into the low grounds, cut a ditch along the edge of the rising ground, about the commencement of dampness, of sufficient width and depth to carry off all the water that rises, or runs down the hill when it rains, of the following proportions, four feet wide at the top, one and a half feet at the bottom, and two and a half feet deep—may be made larger or smaller as circumstances require—and dug on an even and gentle fall to the main ditch, stream or tide; for where the bottom or marsh is wide it is necessary to have one or more central ditches, besides the above, all directed in their course to the main outlet; experienced ditchers can give the proper fall to the water as they dig, but for hands less experienced, it will be best to assist them by leveling as they proceed; a cheap level may be made as follows: nail three narrow boards together like a pair of rafters, with a collar beam, then fasten the plumb line to the top of the rafters, passing the line down to the collar beam, on which have a line marked at right angles, with a horizontal bearing of the lower part of the level, which may be made to span fifteen or more feet, with which great despatch in leveling may be performed; and should there not be sufficient fall at the intersection of the main ditch, and tide, to let out the fresh water in time of a high tide, a strong and durable embankment must be made, of sufficient length and height to keep out the highest tiles. In making the bank take the earth from the side next the water, otherwise the muskrats will undermine and burrow through the bank; through this bank make one or more tide-trunks of sufficient size to discharge the fresh water; if a trunk of not more than twelve or fifteen inches wide in the clear is required to discharge the fresh water, it may be made by spiking thick oak scantling to the inside of these frames, nail the jointed thick boards made water tight, in order to prevent leakage around these trunks; prepare a kind of mortar, such as is suitable for making bricks, and ram or pack a body of it around the trunk next the tide water; fit in and hang with hinges by the upper edge a strong door, which must be so constructed as to open with the pressure of the fresh water when the tide is low, and as it rises its own weight presses the door into the rabits, and keep out the salt water; by this means in low tides the fresh water is all discharged through the trunks, and the embankments and trunk doors keep out the tide water to the complete drying of the whole marsh; but it will be proper here to remark, that inasmuch as the fresh water is kept in the main ditch during flood tide, it must be made large enough to hold it until ebb tide, otherwise it would overflow the meadow land.

From the main ditch make as many smaller ones as will completely dry the land, many of which had best be made after the sod is rotted, and the soil becomes fine, as hereafter directed; after the land has become dry, grub and burn the bushes: this work, as also the ditching, may be done during the fall and winter months, when other business of the farm will best permit; plough the land deep and well during the winter or spring months, completely turning under all rushes and other trash. Oxen are much best for ploughing such lands, on account of their great strength and steadiness. Then harrow, cultivate, or shallow plough, to keep weeds down while the sod is rotting, but as soon as the sod is completely rotted, plough deep and harrow until the soil is fine. By this management the fresh water marsh may be mostly got in order to sow with grass seed the first fall, and the salt water marsh the second fall, requiring at least one season after ditching to dry, and evaporate its saltness. When the soil by repeated tillage has become dry, and mellow enough to sow wheat in, it may also do to sow grass seed, but if there appears at this season, say about the first of August, (frequently the dryest season of the year,) damp places, they should be entirely removed, by making small drains, so as to convey the water into the principal ditch, to perform which the cheapest and best way is, (as the ground is now mellow,) to plough from two to eight furrows, open from each other, finishing with a water furrow in the middle; by repeating this ploughing it raises the ground on the outsides, and lowers it in the centre, the earth thus ploughed must be removed to low spots near which may be performed very expeditiously by a yoke of oxen attached to what is generally called a scoop or scraper, and in Flemmish husbandry is called the *mouldebaert;* (See plate, vol. vi. American Farmer,) which is made like a large shovel, but the kind most in use here has two handles, one for the man to hold, while the oxen or horses draw the scoop edge foremost, into the mellow earth, by which means the scoop fills with earth equal to one third or half of a one horse cart load, which they draw away, sliding on its own bottom, and is unloaded by the driver, who raises the handle without stopping the cattle. To form a drain with this instrument, fix the team across the above ploughed land, and with the edge of the scoop in the centre, and load with the ploughed high edge, and haul it off to the nearest low spot, not more distant than twenty-five yards; on returning, cross the ploughed land and carry a load out on the opposite side, and so plough and scrape until the whole drain is completed to any desired depth. The work may be done in this way at one fourth the usual cost of ditching, leaving a handsome cavity gently raising from its centre, convenient to pass over with a plough or cart, and may be cultivated with the rest of the field or meadow, consequently the brambles will not grow as they do on the ditch bank, yet capable of conveying as much water; this implement has long been used by road makers and cellar diggers, and is very useful on a farm for removing ditch banks, and other mounds of earth, and filling deep washed gutters, &c. The cost of this implement is about eight dollars.

The land being ready to receive the grass seed, proceed to sow timothy or orchard grass seed, very evenly, when there is no wind, at the rate of about six quarts of the former, and of the latter one and a half bushels per acre: from the twentieth of August, to the tenth of September is the best time in the latitude of Baltimore; they will do to be sown something later on stiff rich land, but on poor sandy land the seed ought to be sown as soon as the heat of summer is past, to give the grass time for their roots to get sufficient hold to stand the winter frost; timothy makes the best hay for sale, orchard grass also makes good hay if cut when in flower, and produces abundance of late and early pasture for which it is very valuable; the herds grass is also valuable for pasture or hay, but its produce is less than either of the above, but is better adapted for cold wet soils. The above quantity of seed is the least quantity I would recommend under the most favourable circumstances; they should be sown immediately after the harrow, while the ground is yet damp, and brushed or lightly harrowed in, and if the land is sandy or dry, it ought to be rolled, to settle or close the fine particles of earth about the seed, and keep out the penetrating drought. Robt. Sinclair.

Clairmount Nursery, May 10, 1830.

(From the Charleston City Gazette.)

COTTON CROPS.

Savannah, June 1.

The crop of 1829.—The stock of cotton was taken yesterday, from which it appears that there is in this port in store and on ship board not cleared, about

	bales 23,000
The stock in Augusta is	14,000
And the quantity to be received there is estimated at	3,000
Shipped from this port to this time	200,000
Total,	bales, 249,000

(From the Savannah Georgian.)

The annexed table contains a statement of the import of cotton into Great Britain for the last twelve years; also an account of the export, consumption and stocks at the end of each year, during that period.

To ascertain the increase or decrease of the imports from different places for each six years during those twelve, they are divided into two equal periods.

In the first six years, 1818—1823, the import from the United States was,	1,794,000
In the latter six years 1824 -29 it was,	2,650,000
Giving an increase of	856,000

Or about 48 per cent.

The imports in the first six years from all other places were

	From Brazils,	*East Indies,*	*West Indies.*	
In 1818 to 1823,	876,000	228,000	576,000	1,680,000
In 1824 to 1829,	845,000	159,000	414,000	1,418,000

Decrease in the latter six years,	262,000
And imports from *Egypt* in the latter period.	258,000
Decrease from all quarters except the United States,	4,000
Increase in the latter six years over the first six years,	852,000

Thus the imports into Great Britain, from all parts except the United States and Egypt, were less in the latter than in the first six years; and so great was the falling off, that even an import of 258,000 bales from Egypt, during the latter period, did not quite make up the deficiency.

To ascertain the progressive increase of consumption, the twelve years are divided into periods of three years—

First three years	1818, 19, 20,	bales 1,332,000
Second	1821, 22, 23,	1,617,000
Increase these 3 years over the preceding		285,000
Third	1824, 25, 26,	1,742,000
Increase these 3 years over the preceding		125,000
Fourth	1827, 28, 29,	2,143,000
Increase these 3 years over the preceding		401,000

Shewing an average annual increase—

In the second period over the first of	95,000
In the third over the second	41,000
In the fourth over the third	133,000

But the increased consumption in the last six years exceeds that of the first six by 936,000 bales, or an annual average of 156,000 bales—the whole of which increase was supplied by the cotton of the U. States.

From all we can learn on the subject of the consumption of cotton, both in Great Britain and in Europe generally, there is every reason to believe it is increasing faster now, than at any former period. The above statement shews conclusively, that no increased supply has been received in Great Britain, during the last six years, except from the United States. This is the more remarkable, because in 1825, prices advanced upwards of 125 per cent. over the average rates of several preceding years, and necessarily brought out all the stores of cotton from every quarter.

From these facts it is fair to conclude that any future increased consumption of cotton, can only be supplied by the United States.

The increased consumption of the last six years over the preceding, is 936,000 bales, or about 31½ per cent. Supposing the increase for the next six years to be in the same ratio, on the last six years, the consumption of Great Britain alone would be about 5,108,000 bales—or an annual average of about 851,000 bales—the average of the last six years is about 647,000, and of the preceding six, 1818—1823, about 491,000.

The imports from all places except the U. S. from

1818 to 1823, 6 years, average,	280,000	per ann.
1824 to 1829, do.	279,000	per ann.

The exports during the same average:

For the first term,	50,000	per ann.
For the latter term,	78,000	per ann.

The proportion of American cotton exported from Great Britain, one year with another, does not exceed one eighth of the whole—or 6,000 for the first period, and about 9,700 for the latter—the difference namely 44,000 per annum for the first term, and 68,300 per annum for the second, must have been taken from the imports from other places than the United States. Thus, the consumption of other cottons than those of the United States for the last six years, (with the exception of the difference of stocks at the end of 1823 and 1829,) must have been only about 211,000 bales per annum, which, deducted from the annual average consumption for that period, viz: 647,000, leaves 436,000 bales which must have consisted of American cotton.

Let us examine, on the same principles, the consumption of the last three years 1827, '28 and '29, and see what was the probable proportion of American cotton, without noticing the difference of stocks at the end of 1826 and 1829.

The consumption of those years was 2,143,000 bales.

The import of cotton during the same period, from other places than the United States 833,000

The export in the same time 246,000

Deduct 1-8 for American 31,000

Leaves other than the United States 215,000

Remains for consumption 618,000 bales

Leaving the quantity of American cotton used 1,525,000

Or 508,000 per annum.

To which add the supposed export as above 31,000

American cotton consumed and exported 1,556,900 bales

The import from the U. States in those years, was 1,551,000 bales

On the supposition of an increased consumption for the next three years, in the same ratio, as we find in the last over the three preceding, it would seem, as stated above, that the average annual consumption for the next three years would be about 851,000 bales.—There having been no increase in the import for the last six years from other places than the United States, we have no reason to assume there will be any for the next three years—if not, and supposing the export from Great Britain to be continued in about the same proportion, there would be an annual consumption of cotton not the growth of the United States of only about 206,000 bales; the difference 645,000 bales must necessarily be received from the United States. We know that no such quantity can be supplied.

These statements are made for the purpose of shewing the importance of American cotton to the manufacturing world—as well as to the commerce of the United States.—No nation can compete with us in its production; it will go on increasing with our growth—its transportation to Europe will always employ a large portion of our commercial marine; its shipment will give activity to our merchants, and its culture an easy employment to the growing population of the south.

Mercator.

State of the Import of Cotton into Great Britain in twelve years, viz—From the 1st Jan. 1817, to the 1st Jan. 1830. Also, of the Export, Consumption, Stock, and average price of Uplands at the end of each year.

Import in 12 years.	From the U. States.	From the Brazils.	From the W. Indies	From the E. Indies.	From Egypt.	Total.	Export.	Consumption.	Stock at the end of each year	Average price of Uplands.
1818	206,000	161,000	52,000	247,000		666,000	59,000	422,000	297,000	20d
1819	205,000	125,000	31,000	184,000		545,000	66,000	440,000	353,000	13½
1820	304,000	178,000	31,000	58,000		571,000	26,000	470,000	407,000	11½
1821	302,000	121,000	39,000	30,000		492,000	53,000	500,000	357,000	9½
1822	329,000	144,000	40,000	19,000		532,000	60,000	551,000	286,000	8¼
1823	448,000	147,000	35,000	38,000		668,000	35,000	566,000	384,000	8¼
1824	282,000	143,000	32,000	51,000	33,000	541,000	53,000	596,000	235,000	8½
1825	423,000	198,000	35,000	60,000	103,000	819,000	73,000	616,000	416,000	11 5-8
1826	394,000	56,000	20,000	65,000	47,000	582,000	95,000	530,000	342,000	6¾
1827	647,000	120,000	32,000	73,000	20,000	892,000	73,000	676,000	452.000	5 a 7*
1828	442,000	167,000	23,000	85,000	31,000	748,000	64,000	730,000	406,000	5¾ a 7*
1829	462,000	161,000	17,000	80,000	24,000	744,000	109,000	737,000	289,000	" "*
12 years.	4,444,000	1,721,000	387,000	990,000	258,000	7,800,000	768,000	6,834,000		
1st 6 yrs.	1,794,000	876,000	228,000	576,000		3,474,000	301,000	2,949,000		
2d 6 yrs.	2,650,000	845,000	159,000	414,000	258,000	4,326,000	467,000	3,885,000		
Increase in the last six years			: :	: :	: :	852,000	166,000	936,000		

*Averages for these years not ascertained.

ROTATION OF CROPS.

J. S. Skinner, Esq. *Virginia, June 5th*, 1830.

My cleared land is divided into four lots or shifts, of unequal sizes, averaging perhaps something less than thirty acres each; of course my rotation of crops is corn, wheat, clover, and then corn again, &c. which gives me but one field for wheat, except such small lots as I manure from my summer savings. I have a tolerable large stock of horned cattle for my number of acres, which must have grass in the summer months from one of these fields. Now the subject of inquiry is this: what time ought the field to be grazed? the year before it goes into corn or the year before *that?* If it be closely grazed the first year of clover, the next crop of clover will not be sufficient to benefit the ground much if turned in, and if the first crop be suffered to remain on the land, and graze off the second, then when it is fallowed for corn, there will be no green dressing to turn in, and moreover it is probable there would not be clover seed on the ground to insure a crop of clover without sowing.

If any of your correspondents will be good enough to satisfy me on this head through your paper, I shall esteem it a kindness; for this is unavoidably my situation, and as I have not experience myself, it is a matter of interest to me to be put in the best way, and I have no convenient source of information, save the American Farmer.

Respectfully your ob't servant,

T. T.

P. S. One other small matter I would fain ask. When I carry out my manure on my lots to fallow after harvest for wheat this fall, or in the spring for corn, must I spread the manure before the plough, so that it may go in deep with the herbage, or must I fallow, leaving the piles of manure, and then spread and harrow or plough in shallow? T. T.

(From the Southern Agriculturist.)

GRASS.

Account of a Native Grass, which affords excellent pasturage during the winter and spring months: by William Terrell.

"*Sparta, February* 6, 1830.

I received your letter in due time, and have delayed thus long, that I might accompany an answer with a parcel of the seed and a specimen of the grass, (about which you desire information) in its now growing state. From the short time that I have paid attention to this grass for the purpose of propagating it, I fear that I can hardly give you such information as may determine its value; and as I know nothing of botany, I cannot give you its distinctive character. The grass is doubtless, a native, as I have seen it growing in the neighbourhood of this place upon inclosed creek bottom land. The stock from which my seed originally came, grew on the banks of the Savannah river, and were procured by a Mr. Burton who then lived there, some twenty years ago; since which time, he informed me he had kept in stock by putting down an acre or more wherever he had lived. The cultivation of foreign or native grasses for hay, so far as I am informed, has been but imperfectly attempted, and always unsuccessfully in this state; even for pasture. No pains are ever taken to prepare the ground, and, consequently, nothing that deserves to be called an abundant pasture field, is to be seen in our plantations. The labour and attention necessary to produce crops of grass for hay, and, possibly, the proper preparation of pasture lands may be incompatible with the successful cultivation of our great staple, (cotton) it is, therefore, that I have looked with particular satisfaction on this native, as being likely to afford either hay or pasture without much attention, and no other labour than is necessary to prepare the ground, and put in the seed. The qualities which I think may be said to recommend it, are these: it is perennial, and grows well during autumn, winter and spring—it grows well on any tolerable soil, though it prefers moist lands; it keeps possession to the exclusion of all other grasses; it grows tall enough for hay, and produces abundance of seed, the seed-stalk growing five feet high, and resembles rye; it may be sown broad-cast or in drills, and though small and unpromising when it first puts up, it soon grows vigorously. I think from the seeds and blades sent, you will be able to determine if it is the same kind of grass you have referred to in your letter.

The little plant which I have, was sown in my garden in drills, and no attention paid to it, that I might determine its hardiness and its aptitude to extend itself either by branching from the root or by seed. The second year it pretty well covered the ground, extending itself in both ways. I will only add that horses and cattle eat it freely.

In reference to your inquiry about the kinds and use that I may have made of manures, I can only say that I have made no experiments worthy your attention, saving and applying only such as were formed about my stables and cowpens, and these, I dare say, injudiciously. I remain, yours, &c.

William Terrell.

Note.—On examining the plants and seeds of the grass sent us by Mr. Terrell, we find it to be the same as that which we have under cultivation, and to which we alluded in our review of "Twamley on the Dairy," see page 263, of the current volume. We think it highly deserving of more extended cultivation. It will, on good soil, afford as excellent a pasturage during the winter, as any grass we have, either foreign or native, will during the summer. We do not venture this opinion rashly, but after having it under cultivation for six or seven years.—*Ed. So. Ag.*

(From the Southern Agriculturist.)

SUGAR CANE.

Account of the Management and Product of an acre of Sugar Cane: by Edward Barnwell.

(Communicated for publication by the Agricultural Society of South-Carolina.)

Sir,—By the invitation and direction of the members of the Agricultural Society of South Carolina, I have the honour of forwarding to you, their Secretary, a certificate of the product of one acre of sugar cane, cultivated by me upon Kean's Neck, Prince William's Parish.

In further compliance with their resolution, I accompany the certificate with the following statement of the method of culture, quality of soil, &c. &c.

The situation of the land, is such, as usually is considered the best for black seed cotton. Having been under continued cultivation for near thirty years, and having received during that period, but little or no manure; there was spread upon it, the last week in February about 100 mule cart-loads of compost, formed of trash from the woods, corn-stalks, and cotton seed, thrown into a cow-pen, a few weeks before used.

The land was cultivated in corn and pumpkins the year previous, and as soon as the manure was spread, it was formed into broad, flat beds, five feet apart.

A trench four inches deep was then made, and the cane in pieces with four and six joints, was laid six to ten inches apart, with the eyes sideways.

Its first working was in the last week of April, when two furrows were run with a bull-tongue plough through the alleys, followed by the hoe, cutting and hand picking from the young shoots, the scattered bunches of weeds and grass, that escaped the plough, commonly called a flush hoeing. The shoots were at this time about knee high. The last of May, the alleys were again broken up by the bull-tongue plough, and the beds hauled up to, by the hoe, as the shoots were now of a sufficient growth to bear the earth to be drawn to them, the height of the plants about waist high.

The beginning of July, the beds were a second time banked up; but the plough not used; as the shoots were too high to be bruised by the plough horse, or driver walking among them.

The first joint perceived to be formed was on the first of August. On Monday, the 9th of November, the cane was cut down with hatchets, and counted in the presence of the gentlemen, whose certificate is herewith presented, and found to produce 23.150 canes.

Although, on the 1st of November, the frost was so severe as to form thin flakes of ice, the cane leaves were scarcely affected.

However, on the nights of the 10th and 11th, the cane lying on the ground, that the leaves might wilt before being matrassed, more than half were destroyed, as seed cane; but, not at that time so much injured as to prevent their making sugar.

A small mill for one horse, having been erected within a few weeks, I have the pleasure of presenting for your inspection several small specimens of sugar, and one of syrup.

As early as the 1st of December, I found the cane much acidulated by the warm covering of trash and earth used in matrassing it. During the last fortnight, I have opened the matrasses, selected the canes that will answer for planting, and boiled the rest into syrup.

The canes presented to you are a fair sample, of the acre cut and of the condition of the vegetating principle now left. I am inclined to think our best soil for cane will be such land, as is best adapted to the culture of corn, and state further, that the cane is as easily cultivated. Edward Barnwell.

To Charles E. Rowand, Esq.

(From the Southern Agriculturist.)

RICE.

Account of the Culture and Product of a field of Bearded Rice: by A Marsh Planter.

"*North-Santee, April* 16, 1830.

Dear Sir,—In compliance with your solicitation, I occupy a leisure moment to reply to your inquiry.

Impressed favourably, from the many reports in circulation the last year, as regard the quality and product of the Bearded Rice, I was induced to appropriate a twelve-acre field to the growth of this grain. I selected it as one of my best fields, wishing to give it every opportunity of coming to perfection. The seed I procured was of excellent quality, being almost free of red grains: for it I gave one dollar per bushel. On the 15th of April, 1829, I proceeded to commit this seed to the soil, at the rate of one bushel and a half per acre. I flooded this field the same evening, keeping it immersed until the shoots were green in the rows, when the water was drained off, and kept dry until the 18th of May, when it received its first hoeing; immediately after, it was again immersed, and kept so for ten days, when the rice grew through the water; the water was continued on, and the rice continued to grow most luxuriantly. On the 24th May I removed to the island, from whence I made my usual visits of once, twice or thrice a week, as I thought circumstances required my attention. This field of bearded rice received the customary treatment given to my general crop, which is repeated hoeings, with the free use of water according to circumstances, which are various, particularly as our marsh lands are more susceptible of local injuries than river lands generally; hence, I am of opinion, from my small portion of experience, that plantations cannot be managed by any other than the rule of experience derived from an ocular view of the plant in its various situations upon different plantations. To return—the bearded rice continued its promise of an abundant crop even after the gale in August, which did affect it very much, (the winnow-house bearing a sad and convincing proof;) and although I had the rice-bird unusually plenty the last fall, I do affirm they never made an inroad into this field. Observing this attentively, I did hope the protruded beard would be an effectual obstacle to these destructive birds. Such, however, I find not to be the case, and was informed by a gentleman to the south of Charleston, that they had effectually destroyed several acres of this rice which he had planted on the high land.

I kept this rice back until the coldest part of the past winter, when I sent to a neighbouring mill 660 bushels, (*plantation measure*) from whence I received ten barrels of head rice, and fifteen barrels of merchantable rice; the former sold for $1 50, the latter $1 12½ per cwt.—toll taken out of the nett sales. I consequently sent no more to mill, but fed it away, not intending again to plant any of this seed. It also shells very much in the field, and the loss, with the repeated handling is immense. Notwithstanding all these losses, I threshed out 815 bushels of clean rough rice from the twelve acres. Many persons believe that the Bearded Rice and Gold Seed are of equal weight, bushel for bushel; my observation has led me to think otherwise. A Marsh Planter.

(From the New York Farmer.)

USE OF SALT.

It is singular that such a body of evidence should be brought together on the advantages of the application of a moderate quantity of salt to every description of growing crop, from grass to timber trees, and to almost every domestic animal, from the horse to the honey-bee, and yet that salt should be so little in use. We have not a doubt ourselves that it may be of real use to live stock; because we have seen it very generally given on the continent. Mr. Johnson says, "I have given my own gig-horse an ounce of salt every night in his corn, for the last five years; and though he has, during that period, worked very hard, he has continued in the best health, never having had a dose of physic in his life" To be able to dispense with physic, either in the economy of men or cattle, is a grand object; and we certainly think the occasional, or perhaps the constant, use of salt in the food of domestic animals, and especially in that of the horse, as being in a more highly artificial state than the others, a desirable object.

HORTICULTURE.

BOTANICAL PLEASURES.

In Dr. Aikin's letters to his son, we meet with one on cheap pleasures, the whole of which is replete with good sense. It is intended to point out those sources of rational and innocent amusement which are within the reach of almost every person in the more wealthy, as well as in the middle classes of society. We extract from it the following, as it recommends an occupation well adapted to the preservation of health:—

"So many advantages with respect to health, tranquility of mind, useful knowledge, and inexhaustible amusement, are united in the study of nature, that I should not fail most warmly to recommend it to your notice, had you not already acquired a decided taste for its pursuits. In its favour I can speak from my own experience; for the study of botany caused several summers to glide away with me in more pure and active delight than almost any other single object ever afforded me. It rendered every ride and walk interesting, and converted the plodding rounds of business into excursions of pleasure. From the impression of these feelings, I have ever regarded as perfectly superfluous the pains taken by some of the friends of natural history, to show its utility in reference to the common purposes of life. Many of their observations, indeed, are true, and may serve to gain patrons for the study among those who measure every thing by the standard of economical value; but is it not enough to open a source of copious and cheap amusement, which tends to harmonize the mind and elevate it to worthy conceptions of nature and its author? If I offer a man happiness at an easy rate, unalloyed by any debasing mixture, can I confer on him a greater blessing? Nothing is more favourable to health and enjoyment than the combination of bodily exertion and ardour of mind. This, the researches of natural history afford in great perfection; and such is the immense variety of its objects, that the labours of the longest life cannot exhaust them.

(From the Saturday Evening Post.)

PLUGGING TREES.

This operation is a very efficient remedy for destroying caterpillars, aphides, and other insects preying upon the leaves and limbs of fruit trees, ornamental and shade, fine shrubs, &c.

It has often been desired to find such a remedy. Rewards have been offered to destroy easily, and speedily the insects of fruits trees. Our shade trees are covered every year with disgusting and voracious caterpillars Year after year, new, troublesome and costly means are proposed, which are inefficient: while this very easy and cheap way to poison and destroy at once all the insects of any tree, is so little known that our farmers and gardeners appear to be unacquainted with it. It was discovered in France, and I have verified it, by actual experiment. I now publish it again, and request editors friendly to agriculture to spread the knowledge of it every where.

This simple operation consists in boring a hole through a tree with a gimblet, about one third of the diameter of the tree, in depth. Fill the hole with a small quantity of *Flour of Sulphur*, and plug the hole by driving in it a wooden peg. This does not injure the tree in the least; but the sulphur is decomposed or carried into the circulation by the sap, and is exhaled by the leaves in a gaseous state, while it poisons and kills all the caterpillars and insects preying upon them. Whether boring and plugging with sulphur the roots of the peach tree and other trees whose roots are injured by insects will answer as well, is unknown to me, not having tried it; but it is worth while to make the experiment—the result may be favorable.

C. S. Rafinesque.
Professor of Botany, &c.

ONIONS A CURE FOR DROPSY.

A correspondent informs us that there is a boy living at Denny, who, about three months ago, was seized with dropsy, for which he underwent the operation of tapping; after which, the water again gathering, the boy was so much swelled that the two doctors who attended him said he must be tapped a second time in a day or two. It happened, however, that a boy went to see the one affected with dropsy, who mentioned to the other that he had a strong desire to eat some onions. The boy went home to his father's house and procured some for him, and what is remarkable, in a short time after eating them, the swelling abated, the boy discharged a great quantity of water, and continues to do so. He eats onions every day, and is now walking about. Raw onions in this case seem to have produced an astonishing result, which for the benefit of persons similarly afflicted ought to be known.—*Glasgow Chronicle.*

SILK

We were gratified, on Monday last, with the sight of *four hundred and fifty* very handsome healthy looking silk cocoons, produced in this county. The lady (Mrs. Ann W. Trulock,) who exhibited them to us, stated that she had several thousand more which would soon be ready for market. Mrs. T. assured us, that if she were young and able to attend diligently to the worms, she could soon realize a fortune at silk raising —*Chestertown Telegraph.*

Imitation is the sincerest flattery.

RURAL ECONOMY.

(From the Virginia Literary Museum.)

DISEASES OF THE HORSE.

"Apres la Medecine et la Chirurgie, la Marechallerie est sans contredit la profession la plus utile a l'etat."
La Fosse—*Guide du Marechal.*

The diseases of the horse are too much neglected by scientific inquirers in this country. In Britain and in continental Europe, especially in the latter, there are veterinary colleges where the anatomy, physiology and pathology of that useful animal are regularly taught and investigated, by professors of eminence not only in veterinary but in human medicine. Here there is no instruction of a scientific nature to be obtained and the poor animal is handed over to the illiterate farrier or left to the sole efforts of nature—a more fortunate event, frequently, as he thus escapes the additional mischief which is to be apprehended on the part of the ignorant pretender. The old story of experience is frequently invoked in favor of these practitioners—in forgetfulness, that if their minds be unprepared, either from ignorance or prejudice, to profit by experience—time can only confirm and multiply the erroneous views under which they acted at their first outset in practice.

The diseases of the horse resemble those of the child, in the mode of their investigation—neither can depict sentiments by language, and we are left, in both, to the expressions elicited by partial movements—by gestures, for example.

In the child these movements are of the utmost importance in forming our judgment of the seat of disease. The expression of the countenance is very different, when the head is affected, from what it is in abdominal derangements: this we see in the adult. Whilst the gestures—the knitting of the eye brows and the carrying of the hand to the head, for example, indicate a different seat of disease from the forward inclination of the body with the hand pressed against the abdomen.

The gestures of the horse, as we shall see, are equally descriptive; and like those of the child may be depended upon. In both cases they are the natural, instinctive expressions of the feelings. It is our object, at present, to point out the indications of these partial movements, as determined by those whose minds have been well prepared for observation, and who have had the advantage of ample experience—such as can rarely fall to the lot of the veterinary practitioners of any age. We allude to the veterinary surgeons of Revolutionary and Imperial France.

It is not, however, our intention to describe the various diseases to which the horse is subject, but rather to offer some general remarks on the Pathology of its internal diseases—the most important which fall under the care of the veterinary surgeon, and which are but little understood by the public in general.

From what has been already said it will have been seen, that if the detection of the internal diseases of the human body be difficult, that of the internal disorders of the horse cannot be easy, as he can neither explain his disease nor the seat of his pain. The Pathology of the horse is, consequently, full of difficulty and we are frequently left in the dark regarding the precise seat of the disease. Where there are no means for detecting with certainty the part affected we can necessarily form only conjectures and be guided by our former experience; in this case the veterinary art is totally conjectural and empirical. He who has the greatest stock of good sense and discernment will deduce the most accurate conjectures; he who has made the greatest number of observations, enlightened by a correct theory—in other words, by a knowledge of the animal economy—will adopt the safest practice, and he who unites these requisites will be the best veterinarian.

Although, however, the veterinary art, or rather the knowledge of internal diseases, be difficult, it must not be imagined, that it is a totally uncertain science: it has certain principles and rules on which its precepts are supported. These principles are Hippotomy or the anatomy of the horse, Physiology or the doctrine of the healthy functions, and Pathology or the doctrine of the functions when in a state of disease; they are the source of all the knowledge which can be acquired in the veterinary art, and the basis on which all reasoning on the subject must rest.

In the investigation of the diseases of the horse as well as those of man we must not reject a single symptom; for although one sign will not render us certain of the disease it may throw a feeble light upon it; it may form a probability; this, joined to another, will strengthen the presumption, and the union of several symptoms or of several probabilities will form a greater or less degree of certainty, according to the value of the symptoms or probabilities which constitute it. Thus, if a horse beats its flanks, we suspect that the circulation in the lungs is not free; if there be fever, the conjecture is confirmed; and, lastly, if there be sweating, dullness and difficulty of breathing, we feel satisfied that there is an inflammatory affection of the chest. This aggregate of symptoms constitutes a certainty in the existence and nature of the disease.

There are, again, cases where we know that malady without fear of being deceived; when for example, it is accompanied with symptoms that are peculiar to it, which have been constantly observed and confirmed by dissection; the asthmatic or broken-winded condition, for example, can never be mistaken.

There are cases, where, without being physically certain of the disease, we are morally convinced of its seat and nature, by the union of probabilities drawn from the symptoms and circumstances of the disease; thus, as in the case already adduced, when a horse has, at the same time, fever, cough and difficulty of breathing; if he sweats, and be dull and languid, we are morally certain of the existence of pleurisy.

There are other cases, again, where, without being morally certain of the nature of the disorder, we have strong reason to suspect it; when, for instance, there are only those symptoms present which are common to many disorders; but which are always met with and in the same number in some particular disease. Thus, when a horse gets up and lies down, is uneasy and beats the ground with his fore foot, we are not certain that he has the colic, but we have strong reason to believe so.

Lastly, there are other cases where it is not possible to know the species of the disease: for instance, where the horse is merely dull, with want of appetite, without fever, sweating or any symptom proper to a particular disease; in this case we may be embarrassed, and this is the stumbling block of the veterinary art. Even in this case art affords means of relief by watching carefully the indications and attending to the symptoms as they may rise.

A few general practical precepts will terminate this communication.

1. Great attention must be paid to discover the indications presented by the disease.

2. Each indication must be assiduously fulfilled:—if there be inflammation or heat, it must be reduced: if there be tension it must be relaxed: if the vessels are too full, they must be relieved; if there be relaxation, the tone of the parts must be restored.

3. In fulfilling these indications, great judgment must be exerted: if, for instance, there be at the same time several indications to be answered, we must begin with the most pressing, and with those which may be fulfilled without going counter to the others. Let us suppose, for example, that we have to treat a pleurisy; or, that there is cough, inflammation, fever, and difficulty of breathing. Each of the indications must be attended to; the cough requires demulcents—the inflammation bloodletting and refrigerants: the fever bloodletting and refrigerants; the difficulty of breathing bloodletting. Here we begin with bloodletting

which is calculated to relieve the most urgent symptoms and likewise the inflammatory condition on which they are dependent; the other remedies can then bring up the train. In every disease this plan should be adopted—considering each indication apart and commencing with the most urgent.

4. When the disease is of little consequence and is not announced by any positive spmptom, strong and active remedies must be avoided. Under such circumstances it is better to wait until the disease shall manifest itself, and in the meantime to give those remedies which are adapted to prevent irritation as simple clysters or gentle purgatives. PHILIPPUS.

ON TAMING AND BREAKING HORSES—*Again.*

J. S. SKINNER, ESQ. *Auburn May* 5, 1830.

Sir,—I see an account in your Farmer, 4th number of the present year, of a mode of taming wild horses, which the writer thinks is the one used by Drinnen. So far from using tow, D. did not even halter horses when going to break them. D. passed through this country a number of years ago; several persons here paid him from 50 to 100 dollars for the secret; I have seen some of those persons teaching horses to follow them, to stand fire, or any other noise, &c. and am led, by close observation of the manner they use, to believe that alarming horses is the only secret. I have seen some try the whip, and where that did not do, take an old hide, tin pan, or any thing that appeared to alarm them. Drinnen, whilst in this country was employed to break a horse, that had resisted the efforts of several persons, who earn their subsistence by breaking horses. His mode of breaking him was thus described to me by an eye witness. The horse was with great difficulty got into a small stable, when D. entered and closed the door; the horse would not at first let him approach him. D. began by rolling an old sugar hogshead at him, at the same time speaking to him in a loud voice; by degrees, he got near enough to caress him, and whenever the horse showed signs of impatience he would roll the hogshead at him again, which appeared to alarm him greatly. In less than half an hour he rode about the yard without saddle or bridle. I have taught several horses that had never been touched before, but to brand them, to follow me, to come to me at the crack of the whip, &c. This is the mode I used: I took the horse into a small stable and commenced chasing him round, cracking the whip, and calling to him very loud, so that he might know my voice, occasionally caressing him. When somewhat gentled, I put on a halter. I then would tell him to *come here,* at the same time pulling him towards me with the rope; if he does not come, I crack the whip again, giving the word, and when obstinate, I touch him lightly behind with the whip, taking care to caress him whenever he shews a disposition to advance. I have tried that plan on several very wild horses, and never found more than half an hour necessary, to make the wildest follow me like a dog. I would also observe that in breaking a horse that has not been used to being handled, rubbing your hand on his nose and mouth, after pulling it under your arm, especially when perspiring, has a very good effect, for nothing is more alarming to a wild horse than the scent of a human being. If you think this worth publishing, I shall occasionally give you some information of our manner of hunting, &c. as may differ from yours in Maryland.

Respectfully, yours, &c.
W. S. HARDING

MAMMOTH OX.

The Newport Herald, R. I. states that an ox, raised by Mr. William Bateman, of that place, weighed as follows, viz: fore quarters, 550, 561—hind quarters 459, 470—tallow 241—hide 160—total 2430 lbs. The ox was seven years old, and weighed when alive 8,000 lbs.

LADIES' DEPARTMENT.

(From the New York Evening Post.)

The following beautiful lines, never before published, from the pen of the late J. G. C. Brainerd, have been obligingly furnished us for publication.

On the lake of young life in a fairy boat,
Like the sweet new moon in a summer sky:
Through a calm of brightness it seems to float,
And in light and beauty its course to ply,
As sudden as a cricket's spring
Its feathery paddles dip the seas,
As gaily as the hum-bird's wing
Its sails arrest the scented breeze:
And pennons bright and streamers gay
Flutter above the diamond spray,
As the keel cuts its wimpling way.

A little boy—they call him Love—
With dimpled cheek and sunny brow,
And pinions like a nestling dove,
Sits laughing on the fairy prow.
And one, as rosy bright as he,
Bearing his torch of purest light,
With more of joy and less of glee,
Trim the gay bark, and shapes aright
The course, as they distance to weather and lee
The scud of the sky and the foam of the sea.

Two forms are their lading, two hearts are their care,
And precious the charge that they joy to convey;
The young and the happy, the brave and the fair,
Have sped on their journey, how blithely away!
But as the moon, which shone but now
A silver streak of heavenly light,
With added glory on her brow
Now nobly walks the queen of night—
And firmly moves though clouds arise,
By storm and tempests fiercely driven,
Shrouding the blue and stary skies,
And darkening all the lights of heaven—
Thus sped the boat; each wale became
Of strong and more enduring frame,
And sternly to the sweeping blast
Stood out the tall and gallant mast.

That boy had strength and courage high,
And manhood lights with thought his eye;
And he, the pilot, sits demure
In dignity, serene, secure.
Yes, all have left their lightness now,
A brighter hope is on each brow:
No fancied chart of fairy bays
And elfin isles directs their ways—
A heavenly guide sits kindly there,
Directing the course of the brave and the fair.
In yon blessed place be their anchor cast,
And holy the haven they find at last.

January 28, 1828.

The reticule of the Duchess of St. Albans, the apprehended loss of which lately produced such vivid emotion in her Grace, at Drury Lane, is said to be one of the most splendid articles in *bijouterie* that ever came out of a jeweller's shop. It is ornamented with brilliants of great value, and has the falcon, the badge of his Grace's hereditary office in the centre, of the same costly materials. The value of the article renders the charge of stealing it the more serious, and an apology of course more necessary. We cannot find, however, that Mr. Jeffries has received so much as an acknowledgment of the mistake. Many of our readers will recollect Jeffries on the stage as the representative of senators, Doges, walking gentlemen, &c., in many of which parts he "enacted," as an equal with the lady who now looks down upon him so immeasurably. [*English pa.*

MISCELLANEOUS.

(From the Balston Spa Gazette.)

OUR VILLAGE.

The improvements in this Village, (Ballston Spa,) during the season thus far, are unparalleled in the history of the place for the last 20 years. Many houses have been built, or greatly repaired: The first in rank, is the *Sans Souci,*—the proprietor, Mr. Loomis, has made improvements both in and around his establishment, by pleasant walks and rural retreats, which add very much to beautify his house—and every thing is well calculated to render the stay of his guests, pleasant and agreeable.—The *Village Hotel,* owned and kept by Mr. Clark, has been improved.—"*My House,*" kept by W. Ford, has been greatly enlarged by the erection of an extensive wing on the west—the house has been otherwise much improved in its appearance.—*Ballston Spa Hotel,* kept by Mr. McOmber. This is an entire new establishment, erected on the site of the house formerly known as M'Bain's Inn. It is built according to the modern style, is pleasant and airy,—and we are confident, that persons visiting this Hotel, will find an agreeable host, in the keeper.—The *Mansion House,* owned and kept by Mr. Kidd, is a fine and extensive establishment. The proprietor has made improvements by carpeting and otherwise beautifying his rooms, which add very much to the internal embellishment of his house.—*Jennings's Inn,* formerly kept by D. Cook, has undergone important alterations, supported by stately columns on the east and north, it has a very imposing appearance.

Our old friend, Mr. *Aldridge,* has been fitting up his establishment, with new carpets, furniture, &c. and is ready to see his old, or even new friends.

There are visiters now at most or all of the abovementioned Hotels.

In addition to the *Female Seminary,* kept by Mr. Booth, (which is now open with a fair number of pupils)—Mr. Jonathan R. Paddock, Principal of the *Ballston High School,* has established himself in the south-western part of this village, in a delightful, airy and pleasant situation. His abilities as a teacher, rank among the first. It will be found very convenient for gentlemen visiting the Spa, to place their sons, while here, under the care of Mr. Paddock, as it will enable them to have a supervision over their conduct.

For the special accommodation of visiters at the Spa, a *Library,* containing a great variety of books, and also, all the new publications of the day—and a *Reading Room,* supplied with *daily* papers from almost every city in the Union, together with papers from most of the states,—has been opened at the *Ballston Spa Bookstore,* where the Proprietor will be happy to exchange salutations with his brethren of the profession.

AN ACCURATE DESCRIPTION.—A certain bellman, not 100 miles from this town, who prides himself on his intellectual abilities, whilst crying a strayed dog, and describing its colour, said, "It was *all* black, with a white face, and a brown nose!"—*Stockport Advertiser.*—This is not quite so good as the blunder a country bellman made, as related, we believe, by Mr. Miller, familiarly called Joe Miller.—A country parson, who was a keen sportsman, having lost a pair of setter bitches, sent a written memorandum to the bellman, in these words, "O yes! whereas the Rev. Mr. Rosygill has lost a pair of black setting bitches, whoever will restore them to him shall be handsomely rewarded. God save the King." His Reverence did not write very distinctly, and the crier was a very bad reader, which must explain the whimsical blunder that ensued, and which served the parishioners to laugh at for a long time. His announcement was as follows: "O yes! whereas the Rev. Mr. Rosygill has lost a pair of *satin breeches*; whoever will bring them back to his Reverence shall be handsomely rewarded. —God save the King." [*English pa.*

(From the American Turf Register and Sporting Magazine, Vol. 1, No. 10.)

NATURAL HISTORY.

The interesting animal whose natural history we are about to sketch, is located, in the zoological arrangement which we have adopted, as follows:

Class, *Mammalia, &c.* Order, *Rodentia.*—No canine teeth; cutting teeth separated from the grinders by a vacant space; grinders most frequently with blunted prominences, having their crown somewhat flat, and formed of transverse laminæ, rarely furnished with sharp points; intestines very long; cæcum very capacious; clavicles frequently entire; claws crooked, and not retractile; thumb of the hind feet separated only into two species.

Family of the *Planicaudita.* Upper and lower cutting teeth sharp and bevelled; each jaw furnished with eight grinders having a flat crown; no cheek-pouches; tail naked, scaly and flat, or compressed; five toes on each foot, those of the hind feet united by a membrane, or strongly ciliated on the margin; ears short; eyes large; body covered with hair; near the anus two glands which distil a strong smelling humour.

Genus, *Castor.* Tail short, broad, flattened vertically; hind feet palmated. Only one living species known,

THE COMMON BEAVER.—*Castor Fiber.*)

Of no animal have the accounts given by naturalists and travellers been more extraordinary, or marvellous. The beaver has been elevated, in point of intellect and foresight, to a rank scarcely, if at all, inferior to the human race. It has been described as raising works, and constructing habitations, which appear altogether impracticable by any animal whose utmost length, does not exceed three feet, whose paws are seldom larger than a dollar, and whose tail, though broad and flat, has naturally such an inclination downwards, that it can scarcely be brought on a line with the back. Yet, it has been asserted that, with such small and unmanageable instruments, these animals are capable of driving stakes six feet long, and as thick as a man's leg, three feet deep into the ground; of watling these stakes into a kind of basket work with twigs; of building huts consisting of several apartments, and even several floors, the latter being supported on notches, cut in upright stakes, and plastering the walls and ceilings of these apartments with mud, so as to form a smooth uniform surface. Incredible as these assertions may appear, they were not unsupported by testimony; but this testimony seems to have been the result of hasty observations, assisted by that love of the marvellous, so natural to a lively traveller; and it has been flatly contradicted by later observers of equal credibility, and apparently of more experience. Still, however, though we abandon these questionable parts of the natural history of the beaver, enough remains abundantly to excite our interest and admiration.

Beavers are found in most of the northern regions of Europe and Asia; but are met with in the greatest numbers in North America. The animal is about two feet long, having a thick and heavy body, especially at its hinder part. The head is compressed and somewhat arched at the front, the upper part being rather narrow, and the snout, at the extremity quite so; the neck is very short and thick. The eyes are situated rather high up on the head, and have rounded pupils; the ears are short, elliptical, and almost entirely concealed by the fur. The whole skin is covered by two sorts of hair; one of which is long, rather stiff, elastic, and of a gray colour for two-thirds of its length next the base, and terminated by shining, reddish brown points, giving the general colour to the pelage; the other is short, very fine, thick, tufted and soft, being of different shades of silver gray or light lead colour. On the head and feet the hair is shorter than elsewhere. The tail, which is ten or eleven inches long, is covered with hair similar to that of the back, for about one third of its length nearest the base, the rest of it is covered by hexagonal scales, which are not imbricated. When the beaver sits erect upon its hinder limbs, as in the act of conveying his food to the mouth with his fore paws, like the squirrel, the tail is doubled under, or thrown forwards, lying between the legs.

The number of young produced by the beaver at a litter, is from two to five. During the season of union, the voice of both sexes resemble a groan, the male having a much hoarser note than the female. The young beavers whine in such a manner as closely to imitate the cry of a child. Like the young of almost all animals they are very playful, and their movements are peculiarly interesting, as may be seen by the following anecdote, related in the narrative of Capt. Franklin's perilous journey to the shores of the Arctic sea. "One day a gentleman, long resident in the Hudsons's bay country, espied five young beavers sporting in the water, leaping upon the trunk of a tree, pushing one another off, and playing a thousand interesting tricks. He approached softly, under cover of the bushes, and prepared to fire on the unsuspecting creatures, but a nearer approach discovered to him such a similitude betwixt their gestures and the infantile caresses of his own children, that he threw aside his gun and left them unmolested."

In their natural state, beavers subsist entirely on vegetable food, and the bark of trees; and as during summer these are to be obtained in great abundance, the beavers pass that season in wandering, dispersed about the meadows and thickets that border the lakes and rivers that abound in our northern regions. Here they ramble at their ease, retiring, for occasional shelter or repose, to the covert of bushes; and when any sudden noise indicates the approach of danger, of which they receive notice by proper sentinels, they seek a sure retreat in the neighbouring waters. Towards autumn they quit their roving way of life, form themselves into communities, and, instructed by that admirable instinct, of which we have so many examples in the history of animal creation, begin to provide for the wants of a season, whose duration and inclemency would effectually preclude a regular supply of their accustomed nourishment. On the approach of winter, those beavers which constitute an established society retire to their old habitations, while such as have formed new colonies set about constructing cabins for themselves.

The winter quarters of the beavers are situated on the bank of a river or creek, or, where these are not to be found, on the edge of a lake or pond. In selecting the exact spot where they may form their houses, they appear to be guided by the two considerations, namely: a sufficient depth of water, to prevent its being completely frozen, and the existence of a current by means of which they can readily convey wood and bark to their habitations. To prevent the water from being drained off when the frost has stopped the current towards its source, the beavers construct a dam across the stream; and in this work they certainly display wonderful sagacity, skill and perseverance. The dam is constructed of drift wood, branches of willows, birch, poplars, stone and mud, brought by the beavers in their mouths, or between their paws; but not, as many have asserted, on their tails. These materials are not arranged in any particular order, but are placed indiscriminately in such a manner as to stem the current to the best advantage. If the current be slow, the dam runs straight across; but if the stream be rapid, the dam is formed with a regular curve, having the convexity towards the current, so as effectually to resist the force of the water and ice that rush down during the storms of winter, or the thaws that take place in spring. Those dams are several feet in thickness, and of such strength, when completely formed, that a man may walk along them with perfect safety. As these dams are of the highest importance, the beavers are careful to keep them in constant repair; and if by any accident or the mischievous curiosity of human intruders, a part of this essential wall should give way, they immediately collect all their forces, and stop the fatal breach.

Having completed their dams, they proceed to construct their cabins. These are partly excavations in the ground, though their roofs form a sort of vaulted dome, that rises a little above their surface. They are formed of the same materials as the dam, but according to Mr. Hearne, they by no means exhibit that neatness and architectural skill for which they have been celebrated by Buffon. Mr. Hearne assures us that the houses have seldom more than one apartment and never more than one floor, which is raised in the middle, to allow the inhabitants to eat and sleep in a dry situation. The principal entrance and outlet to these houses is next the water, on the very edge of which they are constructed; and the opening always slopes towards the water, till it terminates so far below its surface, as to preserve a free communication in the most severe frosts. Some writers affirm that this is the only opening to the house; but as the animals cannot live without free air, we must assent to those who describe another, though smaller, opening towards the land. The houses are of various sizes, in proportion to the number of their inhabitants, which seldom exceeds ten or twelve, though sometimes double that number has been discovered in the same dwelling. Many of these houses stand together along the margin of the water, forming a village of from ten to thirty tenements.

During the latter end of summer, the beavers cut down their wood, and collect their roots. The former is kept in the water, whence they fetch it as occasion may require. We have already said, that, in eating, they sit on their rump like a squirrel, with their tail doubled in between their hind legs, and holding their food between their paws. When disturbed, they utter a peculiar cry, and plunge into the water, flapping the ground and the water with their tail. This flapping of the tail, which is a very common custom with these animals, is considered, by some writers, a premeditated signal to their associates. The following anecdote is related in Long's expedition to the Rocky mountains, as a *hunter's story* however: "Three beavers were seen cutting down a large cotton-wood tree; when they had made considerable progress, one of them retired to a short distance and took his station in the water, looking steadfastly at the top of the tree. As soon as he perceived the top of the tree begin to move towards its fall, he gave notice of the danger to his companions, who were still at work, gnawing at the base, by slapping his tail upon the surface of the water, and they immediately ran from the tree out of harm's way." This anecdote most probably belongs to the *fabulous* history of the beaver.

Beavers are hunted both for their fur, which is very soft and glossy, and for that peculiar drug, called *castoreum*, which is not an organ peculiar to the male, as was once supposed, but a peculiar scented matter, contained in little bags below the tail, and found in both sexes. Winter is the season chosen by the hunters for attacking the settlements of their prey. They either block up the openings next the water with stakes, and enlarge the other opening so far as to admit their dogs; or they drain off the water by breaking down the dam; and then, securing the holes of the cabins by means of nets, lay them open at the top, and catch the beavers as they endeavour to escape. Their fur, during the summer, is of little value. The difference of appearance which it takes on, caused by age, season, disease or accident, has at times led individuals to state the existence of several species of beaver in this country No other species, however, has yet been discovered; some have been found nearly of a pure white, occasioned by the same cause which produces Albino varieties of various animals. Those skins are said to be in most esteem which have been worn for some time by the Indians, as the coarse long hair falls off by use, and there is left only the short soft down for which alone the furs are valued.

The traits of character exhibited by the beaver in captivity are not very strikingly peculiar, though sufficiently interesting. It learns to obey the voice of its master, is pleased to be caressed, and cleanly in its habits. Mr. Hearne states, that he has kept various individuals about his house during his residence at Hudson's bay, and remarks "they made not the least dirt, though they were kept in my own sitting room, where they were the constant companions of the Indian women and children, being so fond of their company that when the Indians were absent for any considerable time, the beavers discovered great signs of uneasiness, and on their return showed equal marks of pleasure by fondling on them, crawling into their laps, laying themselves on their backs, sitting erect, and behaving to them like children that see their parents but seldom."

We have already said that there was but one *living species* of the beaver. A *fossil* species has been lately discovered by Mr. Fischer, of Moscow. It occurs in the tertiary or diluvial formations on the borders of the sea of Asoff; its head presents the strongest analogies to the beaver of Europe, but its size must have been much greater. Mr. Fischer has named it the *castor trogontherium*. The *varieties* of the beaver are:

1. *Common beaver*—Castor fiber—Lin. Godman A. N. Hist. vol. 2, page 21.
2. *French beaver*—C. Galliæ. Geoff.
3. *Guillino* or *Chili beaver*—C. Huidobrius. Lin.

(Items from late English papers.)

Shower of Young Herrings.—A highly respectable correspondent mentions an occurrence of this nature which took place in the island of Ulva, Argyllshire, on the 9th ult. The day was calm, but, to use our correspondent's expression, there was a "steady even-down pour of rain." Towards evening, when the heavy shower abated, the country people were surprised to find numbers of small herrings strewed on their fields and in the neighbouring muirs, in a perfectly fresh state, and some of them, according to the testimony of the people, exhibiting signs of life when lifted from the ground. The distance from the places where the herrings were found to the nearest point of the sea shore was every where at least half a mile. Similar instances of showers of small fish are on record. The explanation in this case seems to be, that a water-spout had formed over a part of the neighbouring sea where herring-fry were swarming at the surface, and that great numbers of these had been drawn up along with the column of water, and after a short aerial voyage had descended with the "even-down pour."—*Edinburg paper.*

A Man his own Grandfather.—In a neighbouring county there was a widow and her daughter-in-law, and a man and his son. The widow married the son, and the daughter the old man. The widow was therefore mother to her husband's father, and consequently, grandmother to her own husband. They had a son, to whom she was great grand mother. Now, as the son of a great-grandfather must be either a grandfather or a great-uncle, this boy was one or the other. He was his own grandfather!—and this actually was the case with a boy at Norwich School.

That policy which can strike only while the iron is hot, will be overcome by that which can make the iron hot by striking. He that can only rule the storm, must yield to him who can both raise and rule it.

THE FARMER.

Baltimore, Friday, June 18, 1830.

(From the Transactions of the Essex Ag. Society.)

MEDAL FOR HON. TIMOTHY PICKERING,

LATE PRESIDENT OF THE SOCIETY.

The Committee appointed to procure and present to the Honourable Timothy Pickering, a suitable MEDAL, with appropriate emblems, expressive of the high estimation in which the Society hold his services as President, he having sustained this office since its first organization in 1818, Report:—

That before they had an opportunity of executing the wishes of the Society, expressed in the above vote, the lamented death of the Hon. Mr. *Pickering* had occurred. This event occasioned delay on the part of the Committee. They were of opinion, however, that they should best execute the objects of the Society by completing what they had originally intended, and by presenting it to his eldest son and Executor, the Hon. *John Pickering*. Having understood that our late venerable President had privately expressed an opinion, relative to such testimonials of approbation and respect, your Committee ventured to substitute a CUP for the Medal voted by the Society. The Committee transmitted the Cup to the Hon. John Pickering, of Boston, accompanied by letter, of which the following is a copy:—

Newburyport, Sep. 23, 1829.

Hon. John Pickering,

Sir,—The Essex Agricultural Society, at their last annual meeting, on occasion of the resignation of their respected President, your venerated Father; after passing a vote expressive of their thanks for his "long, faithful and arduous services as President of the Society"—"*Voted,* that Messrs. Mosely, Adams and Duncan, be a Committee to procure and present to the Hon. *Timothy Pickering* a suitable Medal, with appropriate emblems, expressive of the high estimation in which the Society hold his services as President." The Committee were preparing to execute this charge (substituting a Cup for the Medal, from respect to an opinion expressed by Col. Pickering in relation to the form of such compliments) when his long course of active usefulness was suddenly terminated. On his lamented decease the Committee deemed that they should best fulfil the intention of the Society by presenting to you, his eldest surviving Son and Executor, the compliment designed for your respected Father:—They therefore, in behalf of the Essex Agricultural Society, present to you this Cup, and at the same time would express their respect for those talents and virtues which make you the worthy inheritor of your Father's honors.

We are, Sir, very respectfully, your obedient servants,

Ebenezer Mosely,
Daniel Adams,
James H. Duncan.

Mr. Pickering's Answer.

To Ebenezer Mosely, Daniel Adams, and James H. Duncan, Esquires,

Committee of the Essex Agricultural Society.

Boston, Sep. 28, 1829.

Gentlemen,—I have received, with those feelings which the occasion could not but excite, the donation on behalf of the Essex Agricultural Society, which was originally intended for my father, as their late President. Had he survived to have received it himself from his friends, and associates, who constitute that respectable body, this testimonial of their respect and of the value attached to his efforts in promoting the honourable and important objects of the Society, would have been highly grateful to him. The affectionate remembrance of myself, on this occasion by that association of intelligent citizens, whose names will ever be honourably connected with the history of my native county, and whose partiality has now conferred on me this additional mark of the personal regard which was so often manifested during my residence among them, again calls for my warmest and most respectful acknowledgments, which I request you to communicate to the Society.

I have the honour to be, gentlemen, with the highest regard, your obedient servant,

John Pickering.

Inscription on the Cup.

PRESENTED TO THE
HON. TIMOTHY PICKERING,
BY THE
ESSEX AGRICULTURAL SOCIETY,
IN GRATEFUL ACKNOWLEDGMENT
Of his Important Services as their First President.

Elected—February 16, 1818.
Resigned—September 25, 1828.

Per order of the Committee,
E. Mosely, *Chairman.*

Haverhill, Oct. 1, 1829.

The Wheat Crop.

The new Wheat comes in slowly. From the inquiries which we have been enabled to make, the present will not only exceed an average crop, but the grain is generally, of most excellent quality. True, we hear partial complaints of the fly, &c.; but this is more or less the case every year, and such should not weigh a feather in the mass.

What think our farmers of the theory of Dr. *Herschell,* that the spots on the Sun's surface have great influence on grain? This celebrated astronomer, it is stated, kept a table of the years in which spots appeared on the face of the Sun, and found them the greatest grain seasons in Europe. Now, a scientific writer in one of the New York papers, mentions that four spots have been for some time quite visible on the Sun's disc, and as this phenomenon is accompanied by the coincidence of an abundant crop of small grain, the learned Doctor's idea would seem to be strengthened so far.—*Petersburgh Intel. June* 15.

Latest Foreign News.

By the Birmingham from Liverpool, London dates to the 7th, and Liverpool to the 8th, have been received at New York.

The papers express no belief of the king's recovery. The Courier says—"We deeply lament to state that, from private sources of information we greatly fear that the sovereign's health is such as to warrant any thing but favorable anticipations. The inquiries at St. James' palace, were more numerous this day than we have heretofore seen." The Brighton Gazette intimates a hope he may survive for some time yet; though the same paper says the king himself dictated the bulletin which announced that he was "better."

Insolvents.—During the last year, 4000 persons took the benefit of the Insolvent act. Their debts amounted to 11,000,000*l.* and the dividends paid, amounted on an average to fourpence farthing in the pound.

Accounts from various parts of the kingdom represent trade to be improving.

Colonial Trade.—Speaking of the negociation respecting the colonial trade between the United States and the British West Indies, the London Courier, of May 4th, says:—*It is true that the Colonial Question rests as it was left by Mr. Canning.*"

Dr. Cunquest had succeeded the second time in curing hydrocephalus, by drawing the water from the head, by the fearfully delicate operation of tapping. The patient was a girl two years old.

Preparations for the attack on Algiers, were in active progress in France; nor was the Dey of Algiers indolent. He has employed English and French officers, and attends personally to tho manœuvring of the troops, distributing prizes, &c.

A London paper speaking of the season in England, says: "the spring, which is fully a fortnight earlier than that of last year, has introduced a phenomenon of so novel a character that it is the general topic of conversation in those new delightful regions where the cherry orchards bespot the sylvan bosom of reviving nature. It is well known that the delicate foliage of the beech woods is the object generally of universal admiration about the period that the cherries are in blossom, and that the oak, vying with the surrounding forests, adds to the charms of the scenery, by contrasting a sombre majesty with its verdant and blooming neighbours. This year, however, the reverse is the fact; for although the cherry trees were in full bloom, the beech was still bare on the 23d instant, while the oak, on the contrary, in many instances were out in leaf. This freak of nature has caused great disappointment among the fellers of oak, who have been obliged to suspend their operation till next year. Such a fact is not remembered to have occurred before."

Liverpool, May 8.

The languor and depression in our cotton market continued up to the 4th inst. when the demand again revived, and it has since been pretty general and spirited, and prices have advanced 1-8 to ¼d per lb. The sales this week amount to 18,400 bales, of which 6880 are Upland, at 6¾ to 7¾. 3,800 Orleans at 6¾ to 8¼, with 20 at 9d, and 3,380 Alabama at 6¼ to 7¼ per lb. There was also 670 bales of Sea Island sold yesterday by auction, say 330 bales of white at 11¼ to 16, and 340 stained, at 7¼ to 12¾. The sale was thinly attended, and went off heavily at a decline of ½d per lb. from the prices of the last public sale. Business at Manchester in the home trade continues rather dull, but the export demand for goods and yarn is steady, and we believe the consumption of cotton is undiminished. Our import this week has been only 10,600 bales.

The corn markets continue excessively dull, and declining, and there is no demand whatever for bonded flour. One or two small parcels have been sold in this week at 27s. per bl. The last weekly average of wheat is 65s. 11, and the aggregate 65s. 5, per quarter, which reduces the duty on flour to 13s per bl. The neat returns will probably make the duty 12s. 5, per bl. but below this there is no prospect of its going at present.

Havre, April 30.—Cotton.—The demand has continued extremely limited, but our rates have generally undergone no alteration. The sales since the 17th, are 2112 bales, including 417 Louisiana at 89 to 106, 1551 Uplands, Alabama &c. of which 931 at 90 to 98, and 620 damaged (by auction) at 47 to 94—34 Sea Islands 2f 30 to 3f 10, and 24 Lou. long staple, at 1f 65.

The only sales of rice reported, are 280 ts. good Carolina at 23½f and 35 do. very good, at 23f 75.

The prices of American flour have experienced no material variation. Sales 250 bls. N. York at 35f. 600 Baltimore 34, 60, duty paid—also 1400 do. in bond 31f 62½.

A small lot of fine New York beeswax, has just brought 1f 75 half killo.

From the N. Y. Jour. of Commerce, Saturday, P.M.

The News and the Market.—Some purchases were made in cotton yesterday by those who were confident of better news, and at a price a shade reduced. This morning new vigor has been infused into the market by the news from England, and an animated business has been done at fully the prices current ten days ago.—Ashes are hardly so brisk as they were.—Corn exchange without variation.

Prices Current in New York, June 12.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .11; Alabama, .9 a .12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .12 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. —— a 5.12½; Canal 5.37½ a 5.62½; Balt. Howard st. 5.12½ a 5.25; Richmond city mills, —— country, 5.00 a ——Alexand'a, 4.87½ a 5. Fredericksburg 4.75 a —— Petersburg, 4.75 a 4.87½; Rye Flour, —— a 3.25; Indian Meal, per bbl. 2.50 a 2.62½ per hd 12.25 a 12.50. *Grain*, Wheat, North, 1.08 a 1.10; Vir. — a 90; Rye, North, 63 a 65; Corn, Yel. Nor. .53 a 54; Barley, — a — Oats, South and North, .32 a .38; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.25 a 9.75; prime 5.75 a 6.25; cargo 4.50 a —— Butter, N. York, 12½ a 15; shipping, .6 a 11; Lard, .8 a .8½; Pork, mess 13.25 a 13.87½; prime 9.50 a 9.87½.

Prices Current in Philadelphia, June 14.

Bees-wax, yellow .21 a .22; *Beans*, bushel $.75 a .80; *Beef*, mess 10.00 a —— prime 8 a 9, cargo 7; *Butter*, No. 1, 6 a 8, No. 2, 5 a 6; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 4 62½, fine, 4.25 a —— Rye 3.25 a —— Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat .95 a .98 Rye 48 a 52, Corn l. c. white, .35 a .37, l. c. yellow, 38½ a .40, u. c. round, 44 a 45; Oats .28 a .35; Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia 9 a 9½, Western .9 a .9½; *Hemp*, 210 a 220; *Lard*, .- a .7; *Oil*, linseed, 73 a —; *Pork*, mess, 13.50 a ——, prime 11.50 a —; cargo 11. *Rice*, 2.25 a 2.50; *Tobacco*, Kentucky .4 a .7, Vir. .4 a .5½. *Wool*, common washed lb. .25 a .30, half blood .37 a 40, three quarters blood .40 a .45, full blood 47 a .50; unwashed, generally 6 cents less, according to quality. &c. &c.

FARMING IMPLEMENTS.

The subscriber has now on hand, for sale, a supply of Grain Cradles and Scythes; also, Grass Scythes and Sneeds: both hung and separate—Hay Rakes and Forks, Scythe Stones and Rifles, Hoes, Spades, Shovels, Manure Forks, &c.—*all warranted prime articles:* together with his usual assortment of Ploughs, Cultivators, Wheat Fans, Straw Cutters, &c.

JONATHAN S. EASTMAN,
No. 36 West Pratt-street.

ALMANAC.

1830. June.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 19	4	34	7	26	14	52	4	00
Sunday,...... 20	4	34	7	26	14	52	4	40
Monday,..... 21	4	34	7	26	14	52	5	40
Tuesday,.... 22	4	34	7	26	14	52	sets.	
Wednesday, 23	4	34	7	26	14	52	9	45
Thursday,... 24	4	34	7	26	14	52	10	25
Friday,....... 25	4	34	7	26	14	52	11	01

New Moon—20th, 10h. 28m. Morn.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

Baltimore Markets.—A slight advance will be noticed in flour and grain. The former is very dull. The wagon price of Howard street flour is $1.68¾. A small cargo of new white wheat was sold on Wednesday at one dollar. Beef on the hoof is dull, and without alteration.

Tobacco.—Seconds, as in quality, 3.50 a 8.00; do ground leaf, 6.00 a 10.00.—Crop, common red, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 18.00.—Fine yellow, 20.00 a 25.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.—Kentucky, fine, 4.50 a 7.00. Cuba 18 a 28 —St. Domingo, 8.00 a 15.00. The inspections of the week are 227 hhds Maryland and 59 hhds. Ohio; 2 hhds. Pennsylvania, and 1 hhd. Virginia,—total 289.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard-street 4.75 *a* 4 87½—city mills, 4.62½—Susquehanna, 4.62½; Corn Meal, bbl. 2.25——Grain; best red wheat, .98 *a* .——; best white do. .1.00—— Maryland red 80 *a* 87½—Corn, white, .40 *a* .—; yellow .41 *a* .——Rye, .45 *a* .46;—Oats, .33 *a* —— Beans, .90 *a* 1.00—Peas, .65—Clover seed, 3.75 *a* 4. —Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, — *a* ——Flaxseed, 1.00 *a* ——Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. [illegible] .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10——Whiskey, hhds. 1st p. .20½ *a* —; in bbls. 23 *a* ——Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $210 *a* 215; Country, dew-rotted, 120 *a* 125—water-rotted, 145 *a* 150—Fish, Shad, Susquehanna, No.1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1. bbl. —— *a* 4.50 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3. 3.50 *a* 4.00——Bacon, hams, Balt. cured, .9 *a* .10—Feathers, .31 *a* 32—Plaster Paris, cargo price per ton, 3.75 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 80.00 *a* 85.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.50 *a* 5 00—Pine Wood, by the vessel load, 1.75 *a* 2.00—Oak, 2.75 *a* 3.—Hickory, $4.00.

CONTENTS OF THIS NUMBER.

On Reclaiming Swamp Lands, copy of a Letter from J. S. Skinner to Robert Sinclair, with the answer of the latter—The Cotton Crops of 1829, with tabular statements of the imports of Cotton into Great Britain for the last twelve years—Rotation of Crops—Account of a Native Grass—Management and Product of an acre of Sugar Cane—Culture and Product of a field of Bearded Rice—Use of Salt—Botanic Pleasures—Plugging Trees—Onions a cure for Dropsy—Silk—Diseases of the Horse—Taming and Breaking Horses—Mammoth Ox—Poetry—Scrap—Balston, Spa—Natural History of the Beaver, with a cut—Shower of Red Herrings—A Man his own Grandfather—Medal for the Hon. Timothy Pickering, from the Essex (Mass.) Agricultural Society—Wheat Crops—Latest Foreign News and Prices—Prices in the New York, Philadelphia and Baltimore Markets—Advertisement—Almanac.

Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy, corner of St. Paul's and Market streets.

AGRICULTURE.

[From a pamphlet full of curious and valuable suggestions, modestly entitled, "Hints Addressed to the Farmers of Essex," which we received from Henry Coleman, Esq. and which we presume to have been written by him, we take what follows for this week, and shall probably publish the whole. Those in other parts of the country, whose climate or other circumstances do not admit of their availing themselves, in practice, of all these hints, may yet gather from them many that can be turned to account; and may be instructed or amused by those which cannot.]

Hints Addressed to the Farmers of Essex County.

Whatever may be said of other countries and climes, the inhabitants of Essex county have no just reason to complain of the location which Providence has assigned them. Whoever traverses this county will see perhaps as few marks of poverty as in any parts of the country, which have been as long settled, and fewer than in many parts, whose settlement has been more recent. If he does not find many examples of great wealth, especially in our rural establishments, he may observe numerous indications of thrift, comfort, and substantial independence, and the reasonable rewards of enterprise, perseverance, frugality, and industry. The general aspect of the county is diversified and broken, and on that account favorable to health. On a comparison of the bills of mortality in those places, where they have been so kept that this comparison could be properly made, as in Ipswich, for example, with Breslaw in Europe,* a place deemed the most healthy on the continent, the result was greatly in favor of the longevity of this county. We should not know where to look for a population more respectable for its general intelligence, public order, and good morals. These are eminent blessings, and should produce grateful contentment and a rational use of our advantages.

We have no extraordinary fertility of soil; no rich alluvion; no deep intervale on the borders of the streams by which the county is watered. We have little sandy land, but a great deal of a thin, hungry, gravelly surface, and a considerable extent, in scattered parcels, of low and wet swamps abounding with peat and capable of being drained and converted into productive meadow, at an expense, if well managed, which may be fully remunerated by two or three of the first crops. Besides this, we have considerable quantities of superior land; a good soil resting upon a clay or hard pan and retentive of the manure which is put upon it. Our bogs and swamps in the interior of the county furnish abundant means of increasing our manure and enriching our uplands; and as a large part of the county is washed by the sea, the grounds in its vicinity are benefited by the saline atmosphere; and the means of greatly increasing their fertility by muscle bed and sea-wreck are within our reach. Of these advantages many of the farmers in the neighborhood of the ocean avail themselves; and the products of some of the farms in the county, both in the interior and on the sea-board, are highly creditable to their industrious and intelligent cultivators.

We have authentic statements, by which it appears that the following amount of crops have been raised at different times in different parts of this county:—

Of wheat—24 bushels, and 26 bushels to the acre.†

Of Indian corn—70 bushels; 72 bushels; 71½ bushels; 90½ bushels; 93¾ bushels; 105 bushels 6 quarts; 110 bushels; 113½ bushels; 115 bushels; 117¼ bushels.‡

Of Barley—50 bushels; 51½ bushels; 52 bushels and 18 qts.

Of Potatoes—518½ bushels.

Of Carrots—849 bushels; 864 bushels; and 878 bushels, at 56 lbs. per bushel; and 900 bushels.

Of Mangel Wurtzel—924 bushels; and 1340 bushels to an acre, at 56 lbs. per bushel.

Of Ruta Baga—688 bushels.

Of Beets—783 bushels.

Of English Turnips—636 bushels; 687 bushels; 672 bushels; 751 bushels; 814 bushels.

Of Onions—651 bushels.*

We know of a lot of six acres from which thirty tons of hay, actually weighed, were gathered in one season; and another field of about forty acres, from which according to the statement of respectable and disinterested individuals, the yearly crops have averaged more than one hundred and twenty tons, or three tons to an acre. We can point to a small dairy establishment,† the produce of which, when all circumstances are considered, is probably not surpassed in this state, where seven of our native cows, with no extra feed whatever, have averaged a yield of 160 lbs. each of butter in a season; and another‡ where with high feeding five cows have produced 208 lbs. in a season to a cow.

We may likewise refer to the Salem Alms House farm, as an example of successful husbandry, which for the size of the farm, we believe is not surpassed in the country. We admit that they have every advantage both of labor and manure; but it is honorable so successfully to avail themselves of these advantages. We here subjoin an account of the last year's produce, (1829) which, as we have received it from the clerk of the establishment, may be entirely relied on; "the same being as near the quantity produced as can be ascertained, without actual weighing and measuring."

75	tons of English hay.
3	" salt hay.
600	bushels corn.
4000	" potatoes.
200	" barley.
500	" turnips.
200	" beets.
600	" onions.
100	" carrots.
50	" peas in pod.
80	" beans do.
10	tons squashes.
10	" pumpkins.
300	dozen cabbages.
200	lbs. sweet marjoram.
300	" sage.
200	" balm and other herbs.
40	" garden seeds, various sorts.
50	bushels cucumbers.
3	tons melons.
100	bushels radishes.
	Broom corn for 12 dozen brooms.
500	roots celery.
300	fowls.
11600	lbs. pork.
10	calves.
200	cords manure.
	Apples, plums, peaches, cherries, &c. but few—say 10 bushels.

Stock kept on the farm,—

Oxen, average number - -	10
Cows " " - -	10
Horses - - - -	2
Bull - - - - -	1
Hogs of all ages, - - -	80

35 acres of ground were cultivated.
50 " " " mowed.

This farm contains now probably about 110 acres, several of which being ledge, are incapable of cultivation.

These statements are honourable to the county, and if any person would see what judgment, industry, and perseverance can effect under almost every disadvantage, let them visit the farm of Ichabod Nichols, Esq. on the Salem Turnpike, a place so aptly denominated by a traveller "the abomination of desolation;" where, in the midst of rocks and bogs, upon which a man must have had the courage of a hero to look with the thoughts of subduing them, we find productive meadows, and well cultivated fields; and a milk establishment of upwards of thirty cows, alike creditable to the perseverance and productive to the pocket of its indefatigable proprietor.

The farms in the county can none of them be called large; and many of them have been subdivided to an injurious extent. If a man has a large family of children to establish, and wishes to form them to the honorable and industrious habits of an agricultural life, we advise him to emigrate into those new countries, where land is fertile and cheap; and he can form a sort of patriarchal colony around him. The homestead with us is too small to admit of farther division. If he wishes to engage largely in the raising of live stock, or in the cultivation of hemp, he is promised, in the fertile alluvions of the western states, advantages which are not to be found here. But if, on the other hand, it is his main object to obtain a comfortable support, and, for a man of moderate desires, a decent independence, what is an inhabitant of Essex county to gain by emigration. To say nothing of the expenses of removal and the numerous privations and hardships incident to a settlement in a new country; in point of pecuniary profit we believe that the advantage is on our side. If on the banks of the Ohio he may obtain eighty bushels of Indian corn to an acre, we may easily produce fifty. The eighty bushels, if he is so fortunate as to find a market, may bring him twenty cents per bushel, equal to sixteen dollars per acre. His fifty bushels here will ordinarily bring him seventy cents per bushel, which is thirty-five dollars. Labor is nearly as dear in Ohio as it is here, though without doubt the lands are of much easier tillage. One great difference is in the expense and trouble of manuring our lands, for which there will be more than an equivalent in the increased value of the crop. Let the farmers of Essex then, according to the French proverb, "if they stand well, stand still;" and instead of complaining of the hardships of the times and the small profits of farming, let them make the best use of the means of comfort and of bettering their condition, which they possess; and look considerately on the peculiar blessings of that improved state of society in which they live, instead of being dazzled by the bright visions of more fertile soils, and abundant products without labor, which have deluded so many to their ruin.

It must be admitted that the farmers of Essex county have singular advantages from their proximity to good markets. Their produce they can easily sell for cash. Haverhill, Andover, Lowell, Amesbury, Newburyport, Salem, Marblehead, Lynn, and Boston, furnish opportunities for the disposal of our produce at as good prices as are to be obtained in any part of the country. With all this however the agriculture of Essex county is not in an improved condition. Very little is accomplished compared with what may be done. We shall refer to some prominent defects or faults in our husbandry; and with a proper respect for the judgment of those more competent than ourselves to treat this subject, we will hazard a few hints as matters of inquiry and reflection.

It must be admitted, in the first place, that there is a great want of system in our agricultural operations. Few farmers lay down any regular plan of cultivation or pursue any regular rotation of crops; but appear to be governed rather by accident, or caprice, or hereditary custom, than by any well matured plan having in view the gradual and permanent improvement of the whole farm. We know instances in which Indian corn has been planted in the same spot upwards of ten years in succession, and potatoes nearly as long. The consequences are the gradual impoverishment of the soil, diminished crops, and the neglect of other and valuable parts of the farm, which are doomed to the product of a sour or scanty herbage, or to perpetual barrenness and neglect. It does not now remain to be proved that good husbandry requires a change and alternation of crops;* that crops of the same kind on the same land should not immediately succeed each other; that it is a wasteful husbandry, which year after year spends the manure of the farm on the same pieces of land to the neglect of other parts of the farm; and that a skilful farmer will aim by a regular course and in succession to go over the whole of his farm, which is capable of being subjected to the plough, and bring it all both arable and pasture into as good a condition as he can. The intelligent husbandman should look at his whole farm to decide what should be done; determine the quantity to be cultivated by the amount of labor and manure, which he can apply to it; and then arrange his rotation of crops so as to take up one part after another in succession, that in the end the whole shall be brought under a regular and systematic course of improvement.

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* Memoirs of American Academy, vol. i. p. 565.

† The average produce of wheat and rye in Great Britain is 18 bushels to the acre. See Armstrong's Treatise on Agriculture, p. 31.

‡ Mr. Burnham's crop of 117¼ bushels, was rated at 60 lbs. to a bushel. Messrs. Little's of 115 bushels, at 56 lbs. to a bushel. Rating Messrs. Little's crop at 60 lbs. per bushel, it would be equal to 134 bus'ls to the acre.

* The above statements are to be found in the Memoirs of the Massachusetts Agricultural Society, and the Reports of the Essex Agricultural Society.

† Of Jesse Curtis, of Marblehead.

‡ Of Jesse Putman, of Danvers.

We shall speak next of our improvident or unskilful management of manure. Manure is essential to successful husbandry; yet in few instances is half the amount made, which with little trouble might be made. Of what is made a large portion is wasted by exposure to the sun and rains.—We shall say nothing of the advantages of barn cellars and vaults because they are deemed expensive. But we will suggest a few simple rules, which every farmer may observe. Litter your stock with whatever of coarse fodder or refuse hay or leaves you can procure, for their comfort and your interest. The best farmer that Switzerland ever produced (Kliyegg) took care that his cattle should stand knee deep in litter.—Fill your pig styes and barnyards with litter, or mud, or loam drawn from the sides of the roads, or wherever it can be taken without injury to the farm. Confine your cattle as much as possible when at home to your barn yard; and never suffer them to be in the roads; or to waste their manure at their watering places. In the morning throw the droppings of every night into a heap and cover it with a light coat of soil. It is a better plan to house your cattle every night as much in summer as in winter, unless the weather is extremely hot. In general, if the barn is well ventilated they will be as comfortable in-doors as out, and in this way your manure heap will be greatly increased. Take care of the contents of your privy, and save the refuse of your sink by throwing it upon a compost heap, or making the deposite where it can easily be removed. The privy and sink on many farms are most offensive places, and are sometimes so situated that they compel one to think that their owners have scarcely made an approach to a state of civilization.† We should copy the extreme carefulness in this respect of the Chinese and the Flemish farmers, who suffer nothing to be lost. A good farmer should look upon manure of every description as money, which he may place at once at compound interest, and the payment of which is sure. There is no provision of nature, which is adapted more to strike the reflecting mind with grateful astonishment, than that by which the most offensive substances, instead of remaining to pollute the air and destroy the health and comfort of man, are converted into the means of fertilizing the earth, and return to bless him in all the varied forms of beauty and utility, in flowers and fruits and the more substantial products of esculent vegetables and grain. Manures decidedly improve each other by being mixed in compost rather than applied singly. For almost all crops they are of much greater value applied green than kept over the year; and where a farmer cannot form a cellar under his stables, he will find his account in erecting a cheap and rough shed over his manure heap to preserve it from the wind and sun and drenching rains. The expense of it when attached to the barn need not be great, and will be much more than compensated by the advantages gained by it.

We speak next of the winter keeping of our stock. Though there are numerous honorable exceptions, our cattle do little credit to their owners; and when spring arrives it often happens that our cows, and young stock especially, are lean, dirty, and hidebound, and indicate pretty strongly the neglect and hardness of their masters. In many cases, if the farmer can get them through the winter alive upon salt or fresh meadow hay, he congratulates himself on having performed his duty and saved his money. But it is a false economy, and the farmer as well as his cattle are sufferers by such neglect and hard usage. We do not require of the farmer to give much English hay to his cattle, excepting to his milch cows in the spring, because it is too expensive a feed; and it is in general the principal article of produce upon which he depends for the payment of his labor and the pecuniary wants of his family. His meadow hay should be well cured and salted; at least half a bushel of salt to a load. His corn fodder, both top and bottom stalks, should be cured and saved with as much care as his English hay. So too with his barley, rye, and wheat straw. He should lay in a quantity of salt hay if his situation admits of it. To these he should by all means add a plentiful supply of vegetables; mangel wurtzel, Swedish turnips, carrots, or potatoes. The three former, when planted on ridges formed by turning a back furrow, the manure being deposited under the ridge, being once thinned carefully and afterwards cultivated by a plough or drill harrow, may be raised, taking into the account the cost of twenty-five bushels of seed potatoes to an acre, at as little expense as potatoes; and with cultivation, which will give 200 bushels of potatoes; you may ordinarily calculate upon 500 bushels of carrots, Swedish turnips, or mangel wurtzel.

An acre of carrots yielding six hundred bushels, and nine hundred have been obtained in this county, allowing to a horse three pecks per day, in which case he would require no grain and very little hay, which might be coarse hay, would be equal to the keeping of a horse for a term of two years; but as horses are ordinarily kept besides the grain which they require, a horse to be kept in good condition would need for a year more than four tons of good hay or more than eight tons for two years; now allowing one ton and one quarter of hay to an acre, which may be considered as a fair average, the produce of an acre of carrots, as far as and while it can be applied to the feeding of a horse, is equal to more than six acres of land in hay. The manure made from succulent vegetables is doubtless preferable to that from coarse dry food; the health of the animals fed upon them is much better.

Swedish turnips are easily raised and are a valuable food for cattle. One of the most eminent farmers and breeders* in England, at a public meeting in November last, declared that after several years' experience he deemed them for feeding stock superior to every other species of vegetable. Mangel wurtzel is a more precarious crop; it does not keep so late, and is much more likely to be injured by early frosts. It is said likewise, and some instances within our own observation seem to favor the belief, that where it is given abundantly to milch cows, while it increases the quantity of milk, it tends to reduce their flesh. We have found the Swedish turnips a nutritious and excellent root for neat cattle and sheep. Swedish turnips have been kept perfectly free from frost, even during this inclement winter, by being placed in a vacant mow and secured top and sides and bottom with a thick covering and flooring of refuse salt hay. Another advantage of this root is that it may be kept in a sound state until June. Jesse Buel, Esq. of Albany, has raised good crops for several years by planting them on land from which the same year he had taken a crop of grass. Good crops of nearly four hundred bushels to the acre have been obtained in this county, on land broken up after mowing and planted the 18th of July. The fall however in this case was unusually favorable; and the crop would doubtless have been better, if the planting had been earlier.

We will not quit this part of our subject, without calling the attention of farmers to the value of boiled carrots as food for swine. By several accurately conducted experiments, for which he received the Agricultural Society's gold medal, Arthur Young, the distinguished English farmer, demonstrated that boiled carrots as food for rearing and fattening swine were greatly superior to boiled potatoes. If then, as we have grounds to believe from repeated experiments, 500 bushels of carrots can be raised at as little expense as 200 of potatoes, the farmer will find no difficulty in making an inference most important to his interests. We have a detailed account of these several experiments in relation to boiled carrots, but have no room for their insertion.

We remark in the next place upon a practice too common among our farmers, and prejudicial to their interests;—we mean the practice of permitting our teams so often to lie idle. It has grown into a proverb with the English farmers, that if a farmer does not keep the plough going he will fail. To every single or double team in English farming, a ploughman or driver is attached, whose sole business is to take care of his horses and keep them always at work. In general, on farms where labor is hired, if the farmer can afford to keep a team he can afford to keep a teamster, who should be constantly employed with that team; he should no more consent to let his team lay idle day after day, than to let his hired men lay idle day after day. We should therefore plough much more land than we do; and when the team is not otherwise occupied it should at least be employed in procuring and carting to the compost heap materials for manure; or in removing stones, or in carting gravel on to meadows, if that is deemed the best method of reclaiming them; or in other purposes, which the circumstances of the farmer may suggest. At any rate, as a yoke of oxen or a horse cannot be kept but at very considerable expense, their labour should not be lost, where, as in most cases, it is possible to apply it. This can be best done by having a man, who shall be attached to a team, and whose business it shall be, except in cases of extraordinary demand for his labor in other services, to employ this team.

(To be continued.)

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* "For more than half a century the rotation system has formed the true test of agricultural improvement in every variety of soil and climate. Whenever it has been adopted, the art is found in a state of prosperous progression; whenever neglected or rejected, it is either stationary or retrograde." Treatise on Agriculture, p. 81.

† We trust we shall be excused the plainness of these hints, but they concern health, comfort, and interest. A vault walled with stone is to be preferred, but if you have not this, place under the necessary a wooden box with or without a bottom, about two and a half feet deep, and let it extend three or four feet behind the building, having a close but moveable cover; and then having a load or two of loam placed near, by throwing a few shovels full in every two or three days, you will effectually prevent the place from being offensive both within and without; and the contents may be easily removed at any time to the compost heap without disgust or inconvenience.

* The Rev. Henry Berry, British Farmer's Mag.

(From the British Farmer's Magazine.)

On the Present State of some of the Improved Breeds of Cattle in England.

Sir,—When proposing recommendations, founded on my belief in the existence of peculiar defects in the improved short-horns and Herefords, it may not be improper to observe, that where such do not exist, my recommendations will not apply, except it may be indirectly, by way of caution. Each breeder will judge of this fact for himself, I trust, without prejudice.

I entertain an opinion, that the improved short-horns are generally too large, and that some of their peculiar defects may be plausibly assigned to the injudicious attempt of breeders to increase size, while more important properties have been disregarded. All the larger individuals of any tribe of animals appear to depart, more than the smaller, from correct form, producing at the same time a greater proportion of offal. It generally happens also, that their defective formation is seated in those parts, on the construction of which, more particularly, seems to depend constitutional vigour. I should, therefore, consider *that* the most desirable and appropriate size for each breed of cattle, in which the greatest degree of symmetry, united with growth, particularly denoting good constitution, is to be found; and, by the way, would observe, that where the two do not prove to be compatible, according to received notions, symmetry, should give way to indications of hardihood and general utility;—I say, according to received notions, because, though symmetry ought to comprise the useful as well as the pleasing to the eye, I consider the fact unquestionable that it seldom does so. The causes which have induced breeders to consider great size of pre-eminent importance are too numerous to be particularized here, and many of them sufficiently obvious. There are two, however, which it would be improper to pass unnoticed. Among many of the consequences of breeding *in-and-in*, apparent in stocks of the present day, loss of size is not the least remarkable; hence many persons endeavour to increase size, in the hope better constitutions will result from it, rather than to obtain good constitutions, from which would result desirable size—for I think it will not be denied, that animals in which exist the peculiar form which indicates great constitutional vigour will be found in the scales more heavy, in proportion, than such as look infinitely larger. Another cause why breeders endeavour to raise a description of animal, in many respects, on too large a scale, and calculated rather to attract the eye of the ignorant than to satisfy the judgment of the close observer, is the frequent exclamation of purchasers, "we must have something to come to more weight;" here breeding *in-and-in* has perpetrated another mischief. These persons, one and all, tell you they now look in vain for the same proof from herds which were formerly most productive. They are become more delicate, and require increased indulgence, and after all has been bestowed on them, much more than can be repaid in any times, to say nothing of the present, they find closely allied with the delicacy which demands indulgence, a deficiency in weight, and consequently in profit. Hence the cry for "something to come to weight." Now, if we inquire, how comes it they have such a falling off to complain of?—they reply, that had such-a-one and such-a-one, naming eminent breeders, crossed with each other, as they strongly recommended in the commencement of the mischief, all would have gone on well, and probably improvement would have been made; but the great men, fostering a pride which has ruined their stocks, and almost themselves, could not condescend to such a measure, and all the natural consequences have followed: though I must confess my belief that this cry for large animals of the *present stamp* (they not being *essentially* large) will in a short time be no longer heard; for the grazier will still find himself far from the profitable scale; it seems not improper to direct attention to this circumstance, as, if duly considered, it might promote better practice on the part of the breeder, and induce the grazier to adopt caution ere he promulgates any particular doctrine as to requisite size. Indeed, the demand for animals of great size has produced the worst possible effects: it has led to the adoption of a race of long legged, long backed, and short ribbed males, whose produce are no whit deficient in all the worst features such sires must confer. If breeders, disregarding the dictates of petty jealousies, and superior to the impulse of a temporary popular cry, would persevere in breeding animals according to a standard adopted with reference to *utility*, the result must sooner or later prove satisfactory, and there can be no doubt that the grazier would be the first and willing convert. For my own part, if I may with propriety refer to my individual proceedings, I have laid it down as a maxim not to be departed from in practice, to disregard *fashion* in these matters and to look to essentials alone, so far as I can understand and can obtain them; and I am, consistently with this rule, endeavouring to reduce the size of my short-horns, giving the preference to a class of animals standing on short legs, possessing great girths and deep ribs. To obtain such characteristics, generally, in a numerous stock, must be a work of time, but I feel sanguine as to the result. The introduction of this remark will, perhaps, be pardoned, on the principle that it may sometimes be expedient to show that what a person ventures to recommend he is also willing to practise.

A great requisite, in the fore-quarters of a beast, is *substance* or *capaciousness*—in width first, and afterwards in depth, as much as can be obtained; but superficial observers make little allowance for width, provided the eye be captivated with a deep and imposing *side view*. In this essential substance, I think the short-horns too frequently deficient—a mere projection of the lower part of the breast or brisket being regarded as constituting a fine and important feature of the fore-quarter, while the contracted girth and narrow space between the fore-legs are overlooked. Regarding as I do great width and capacity of the chest as absolutely essential, I cannot too strongly recommend the attention of breeders of short-horns to this point. Indeed, if the breed ever fail, as others have done, I doubt not this is the defect to which their want of success will be chiefly owing. But frequent as is the defect, there yet remain great numbers of short-horns well calculated to remedy it.

The shoulders of the short-horns are generally more upright than according to established opinion they ought to be, and not unfrequently they are coarse. On this part of the question I must confess my opinion to be at variance with that of many breeders, whose judgment I respect most highly. If the defects above-named do not exist in a *great* degree, I should disregard them, and that for reasons which shall be stated. In breeding from animals, selected with a view to remedy particular defects, it generally will happen that to attain the object desired something must be sacrificed. For instance, a beast, having bad shoulders, may be very perfect in other respects, while the animal referred to as a cross with such may possess good shoulders, but be otherwise more or less objectionable. Such a state of the case, therefore, renders it highly desirable to assign, if possible, the real force of the objection against moderately upright and coarse shoulders, because if they can be shown not to be essentially objectionable, it follows that no essential point should be sacrificed, or for a time lost sight of, to obtain them. In the horse, and in animals in which free and safe action are of importance, upright shoulders are decidedly objectionable, and it appears to me that this opinion having been adopted as to the horse, preconceived ideas of *beauty* also co-operating, decisions have been formed respecting the proper form of the cow, which circumstances by no means justify. For, to consider the upright position of the shoulder separately, it is in the cow no impediment to such action as is required from her, neither does it necessarily imply *coarseness*, for it seems highly probable that the difference in the bones of animals, differently placed, will be found to consist in position alone and not in weight. Further, I do not hesitate to state my conviction it will on investigation be found, that the cow with upright shoulders generally has not only greater apparent, but actual width and capacity of chest, and that in the process of feeding, her frame is capable of greater expansion than that of one which possesses shoulders falling more finely backwards. Add to this, that it may be questioned, whether it be desirable to have any part of the shoulder blade intruding into one of the finest roasting pieces of meat the carcase produces, which is inevitably the case if the shoulders be not rather upright than otherwise. I am aware of only one more objection which it appears necessary to meet on this question of position. It may be urged, that an animal in a lean state is not so sightly, and, consequently, not so saleable, when the upright position of the shoulder leaves a vacuum in what is called the crop behind it. Now, I ask, is it not as well to have this space left for the uninterrupted growth of a quantity of beef, as to have it occupied by the shoulder blades, which so far preclude the growth of the beef? Is it not, in short, better to place the shoulders out of the way, or so at least as they shall intrude only on that part where the coarsest beef is produced? Convinced I am entitled to an answer in the affirmative, I have no hesitation in stating, that the shoulder placed rather upright is little if at all objectionable; and though, as regards beauty, in certain stages of the animal's existence, another position might be preferable, as regards utility, that which is generally objected to is rather entitled to the preference. Add to this, that such position of the shoulder is perfectly consistent with the most excellent points in the short-horns, the *outside shoulder* and the *neck-vein*. With respect to the coarseness of the shoulder points, or greatness of the bone, an extreme, I should say, is to be avoided; but any thing short of that extreme I would certainly admit. It appears to me unquestionable, that breeders have laid too great stress on the necessity of producing animals with very small bone. It is not for a moment to be doubted, that it is very desirable to have as small a proportion of offal as possible in the carcase of beef, but it is a question entitled to serious consideration, whether this is not frequently purchased by too great a sacrifice? Absolute coarseness must be condemned, but I think extremely small bone is generally an accompaniment, and frequently an indication, of very delicate constitution. It is also one of the first striking results of breeding *in-and-in*. Connecting, therefore, as I do, a rather robust growth about the shoulders with robust constitution, I would never sacrifice any useful property to obtain what may be considered a finer growth; but would merely endeavour to guard against degenerating into an objectionable extreme. A favourite object with the breeders of short-horns has been great length of carcase, and from this preposterous pursuit has resulted what might naturally be expected, viz. a very wide space between the hip and first rib, and a narrow weak back. It is unnecessary to devote time to an endeavour to show such growth is not to be desired, or that it is inconsistent with hardihood. I consider the fact unquestionable, and in this particular stock, the practice cannot be too much reprobated. Some breeders, however, sensible that the practice is not judicious, have endeavoured to obtain length in the quarters, which is certainly more desirable, but this has been pursued beyond the point of utility. The hind quarters of many beasts appear longer than they really are, from the setting on of the tail quite at the extremity of the rump, which, independently of its being deceptious, is undesirable for this reason—cows or bulls, with the tail so set have scarcely ever that great recommendation, a *good full twist*—the division of the thighs in such extends very much too high—which is an indication of want of stamina—besides its excluding a point on which the butcher justifiably sets great value. In the beast possessing the less fashionable rump, that is, one with the tail set *into* it more, as it were, than at the extremity *upon* it, a corresponding full twist will generally be found. Such being my sentiments on these points, it is quite consistent to recommend breeders of short-horns to endeavour to obtain a wider and shorter back, and not unduly to value a very long hind-quarter, if it be not accompanied with a good full twist, and sufficiently and equally covered with meat throughout its whole length. It happens occasionally in the short-horns, as it does with all other breeds, and generally, I have observed, in proportion as they are more near to the unimproved originals, that there is a tendency to undesirable fulness in the buttock and projection of the round bone. When such is the case, it not unfrequently happens that the flesh of the buttock is of a very bad quality, and is designated in the northern counties as *lyery*. This description of flesh is, of course, to be guarded against; but the peculiar form described may exist where the flesh is excellent. The breeder has, therefore, rather a nice task to decide how far he ought to reject this form of the hind-quarters. So particularly has it been guarded against in the Herefords, so much pains have been taken to compress the round bones, so as that a line drawn across them should be perfectly straight, that the effect has been to deprive that breed of the requisite proportion of weight in the hind-quarter, and their thighs are literally shrinking to nothing. The object of the judicious breeder will therefore be to avoid extremes. In his endeavour to attain symmetry and a due degree of lightness of offal, he will bear in mind that these are not to be purchased by a sacrifice of essentials, and whatever may be the variety of opinions on the general question, experience will assure him of this, that customers are more readily found for animals comparatively coarser in frame, than for those which have been over-refined, as many of the Herefords have, till they no longer hold out a promise of attaining the necessary profitable weight and substance in the prime parts. These sentiments, I am well aware, are contrary to received opinions among breeders, and will expose me to attack from the votaries of *fashion*; but my remarks were not commenced with any intention to subscribe to what I deem the errors of the worshippers of that deity; and if my opinions are assailed, I trust it will be with some show of reason.

The hide of the improved short-horn has always appeared to be rather too thin, but great caution is necessary in acting under such an impression. The thin hide, covered with a profusion of hair, and covering a very fine and delicate quality of flesh, are generally indications of disposition to lay on beef rapidly and at an early age, recommendations for which the short-horns stand unrivalled. But where these qualities exist in a great degree, I think the animal more liable to excitement from external causes, and the meat of such, after slaughter, not sufficiently firm. Thicker hides, less hair in quantity, and of quality more harsh, with flesh not so soft to the touch, denote slower thrivers—meat which will set better—and a race of animals not so susceptible of affection from external causes. Entertaining these sentiments, I am yet of opinion that the short-horns would still retain their pre-eminence, and at the same time greatly benefit, by attention paid to the acquisition of a somewhat thicker skin, and a more firm quality of flesh. It remains at present that I remark only on one particular more respecting the short-horns. The males and females of any breed of cattle differ so greatly, that no little skill is requisite to enable a person to pronounce what is really entitled to be considered a good specimen of the former. It is a common error to require that a short-horned bull should be like a Hereford, and vice versa: but though it be admitted that there are certain essentials which every bull ought to possess, of whatever breed, yet it is equally true that what is a good short-horned male would make a very indifferent Hereford. The Hereford breeders wisely require that their males should possess strong masculine features, and owing to the smaller size of their cattle, and their peculiar form, they can safely do so, without running the risk of their stock becoming coarse. The breeder of short-horns ought to adopt the same principle to a greater extent than is at present practised, but certainly under a control from which the other party is freed. I have seldom found that, other things equal, a large bull has been so beneficially used in a stock as a smaller one. If then any person is of opinion great size is a mark of constitutional vigour, it may be worth his while to consider this fact, and to endeavour to recollect if he has not on some occasions come to similar conclusions. Let him seek his indications of good constitution in other respects than mere general size. Let him look to capacity of chest, depth of ribs and width of the loins; and while he considers the masculine character indispensable in a short-horned bull, let him not forget that the greater size of the short-horns may render attention to certain points peculiarly necessary, and that the principal improvement made in this stock is of comparatively more recent date—a circumstance which necessarily increases the liability to degenerate under improper treatment.

If the foregoing statement as to the defects of the short-horns be wholly, or in part only, correct, may I not confidently inquire of the advocates for breeding *in-and-in*, if they could, *on their own principles*, proceed with that system to improve, or retain in its present state of partial perfection, such a stock? They tell us breeding *in-and-in* tends to increase and confirm good qualities already existing in the individuals. I ask them, does it not act in a similar manner as to defects? I may be told that a stock in which such defects exist is worthless; but to such a remark I reply, that I can show them to be inferior to none, if not superior to all. Were they perfect, they would not require improvement; and let it always be borne in mind that it is on the supposition of imperfection my remarks have been volunteered.

I will conclude this letter with a quotation from that well conducted and amusing periodical, "The Sporting Magazine," and at the same time cannot avoid expressing a wish that some of the many able writers who contribute to its pages, would favour the public with *their* sentiments on the subject I have discussed as it relates to horses. In the last November Number (146) of that work, a writer on the subject of purchasing horses for foreign studs, has the following passage:—

"Nimrod says the King of Prussia is so careful of his subjects as to sell Fidelis, as his stock were defective in their hocks. (I wish none were allowed in this country with defects.) That all foreign sovereigns are not so is clear, as many of our defective stallions are now abroad. Young Gohanna, for instance, is, I believe, in Russia: he has lost one eye by a cataract. His brother Crim Con, who died about three years ago, had been blind with the same disorder some years; and the Earl of Egremont, I have been informed, was obliged to get rid of the stock in consequence of its being a family disease, produced by breeding too long in one family. All the stock of the Gohannas are afflicted with this disease—a great many of his stock being blind, or approaching it. He was covering at Romford in Essex last, and I much mistake if those who put their mares to him do not repent, unless they sell his produce young.

"His last owner, although he knew well enough the origin of his blindness, always said it was the groom knocked it out with a fork, though any one conversant with these things could easily tell the real cause; and as I cannot think any one, who knew his descendants would inherit this complaint, would purchase him for the avowed purpose of breeding from, they must have been deceived; when if they had more time allowed them to learn about their stock, and wider scope for their abilities, I have no doubt they would acquit themselves much better."

On the foregoing passage of the Sporting Magazine's correspondent, I propose in your next number, when I resume this subject, to offer some remarks, and shall take the same opportunity of devoting a few words (it may be of *advice*) to Mr. Hayward.

Henry Berry.

Pensham House, Pershore.

EVERLASTING POTATO.

This root is ever ready to afford a supply of early potatoes from one end of the year to the other: they are left undisturbed, except when a dish is wanted: they are not deeply embedded, but soon discovered on stirring the surface mould. The flower seems somewhat different from that of the common potato. They should be planted about the latter end of May; if planted sooner, they come too early. Before frost sets in, the bed is covered with litter as a protection from its influence. They are taken up at Christmas, as fine new potatoes, and are either suffered to remain undisturbed, or perhaps, what is still better, the potatoes are completely forked up as they are wanted, and the smallest being separated, are set apart for seed under a heap or hillock, to be replanted towards the close of the succeeding May. The smallest sprigs of this potato will grow.—*Gardener's Magazine.*

TAR FOR SHEEP.

A gentleman who keeps a large flock of sheep assures us that during the season of grazing, he gives his sheep tar at the rate of a gill a day to every twenty sheep. He puts the tar in troughs, sprinkles a little fine salt over it, and the sheep consume it eagerly. This preserves them from worms in the head, promotes their general growth, and is supposed to be a specific against rot.

Tobacco.—The amount of duty paid in England on this article for the current year was 2,859,000*l* or about $14,000,000—an amount greater than half of the whole revenues of the United States:—and this enormous som is collected chiefly upon *our* tobacco. It is in part the price we pay for the privilege of selling that article in England.—*U. S. Gaz.*

HORTICULTURE.

THE SILKWORM.

Extract of a letter from Dr. F. S. Constancio, at Paris, to Dr. F. Pascalis, of New York.

"I have read attentively, and with much interest and pleasure, your two numbers on the Mulberry and and the Silkworm, in which I remarked very many well-judged observations. In my judgment, your opinion of the nature of the Silkworm is the only true one, and is very ingenious also; of course, I approve the principle that you lay down for the rearing of these useful insects, that of providing them with atmospheric electricity according as it is required. It appears to me, that instead of any electric apparatos, such as the trough, the pile, or Leyden jar and machine, it would be preferable to cover the walls and floors with cheap idio-electric substances, and to attract the electricity of the atmosphere by means of metallic conductors, pretty much as it has been proposed for the hail-rod. By these different means combined, there might be kept up, around the insects electric currents without any shock; which, it seems to me, would be preferable to any abrupt development or charge of that powerful element, the nature of which is a secret, and the action of which is so universal and so wonderful. The ancients would have made of it their Supreme Being, had they studied it as we have; as it is, they seem to have divined its existence in the attributes of their ether, which, in fact, they placed above all the celestial bodies, the primitive gods of every nation. The choice of the wood for the hurdles, is, I think of importance; it may be, that by diligent search, some kind may be discovered infinitely preferable to all others for the preservation of the worms through their several ages. You are more familiar than I with the difference between various kinds of wood in the power of retaining or transmitting electricity, according as they are wet or dry, and oily or resinous in a slight or great degree. The ancients have remarked that some kinds of trees were never struck by lightning. Perhaps silk alone will be an efficacious means of securing constant electricity to the worms, a simple coarse web of it perhaps, or one coated with inodorous gums or resins. Since you have established that air, heat, and light are not the essential principles of the prosperity of the insect, and that its life and vigor depend on electricity alone, I think that a suitable selection of materials under and around it, would create and maintain for it, at our pleasure, the atmosphere most congenial to its nature. As for guarding against humidity, the means proposed seem to me excellent and indispensable, especially in the United States, the most hygrometic country on the globe. On the other hand, it is also the most electric that I know, which peculiarity will much forward the propagation of this new branch of industry. Among the cheap substances that just strike my mind, as fit for lining or coating the hurdles, walls, or floors where the worms are to be reared, which deserve a trial, I may instance, straw, the spartium, horse-hair, fur, felt, silk, tow, &c.

(From the New England Farmer.)

WASH FOR FRUIT TREES.

The very valuable wash for fruit trees, recommended by *Benjamin Wheeler*, Esq. of Framingham, Mass. is as follows. "Dissolve two pounds of potash of the first quality in seven quarts of water for the bodies of the trees. If the limbs are covered with moss or lice, I take a painter's brush and apply the solution to the moss, &c. with care not to touch the leaves or buds. It may be done at any time of the year, when we are most at leisure. Once in from two to four years is generally sufficient. I have no general rule, however, but wash them as often as they appear to need it, which is always when the bark is not smooth."

Messrs. F. & J. Winship, proprietors of the Brighton nursery, near Boston, say that "five years ago, we were exceedingly troubled with the apple tree borer, having, at the same time, several thousand trees infested with them. We applied the wash, as recommended by *B. Wheeler*, Esq. of Framingham, and have continued it every season since, the first week in June, in pleasant weather, on from five to ten thousand trees annually. The effect has been astonishing; not only effectually preventing the destructive effects of the borer, but killing immediately the moss, and destroying those other insects, usually found impeding the good health of the tree, also resuscitating and invigorating every kind of tree we have applied it to. We should recommend as a general wash, one pound of potash to six pints of water. And for promptness of execution the mariner's long handled tar brush, which may be had at the Agricultural Warehouse, North Market-street, or the common paint brush will answer. Every other year will answer as a remedy against the borer, although the horticulturist will find himself richly rewarded by a more frequent application."

It will be seen that the solution of potash recommended by Messrs. Winship, is somewhat stronger than that which *Mr. Wheeler*, prescribes. That of the former is one pound of potash to three quarts of water, and *Mr. Wheeler* advises two pounds to seven quarts. Whether any advantage is derived from increasing the strength of the solution we cannot say. There is, however, a difference in the strength of what the chemists call the carbonate of potash, and a little more or less of strength in the solution is probably of little consequence.

Mr. Wheeler, in conversation a few days since, expressed an opinion founded on some experience of the virtues of his wash, that it would preserve trees against the *canker worm*, as well as other insects. Should that prove to be the case, the discovery will be of incalculable value, as the canker worm, is, perhaps, the most formidable of the insects which infest our orchards. We think, however, that further experiments should be made before it can be positively asserted that the mixture above described will preserve against the canker worm.

(From the New England Farmer.)

WATERING PLANTS.

A copious supply of water is very essential to a good garden. Loudon remarks that "many kitchen crops are lost or produced of very inferior quality, for want of watering. Lettuces and cabbages are often hard and stringy; turnips and radishes do not swell; onions decay; cauliflowers die off; and in general in dry seasons all the *cruciferæ*, (flowers with petals in the form of a cross) become stinted, or covered with insects, even in rich, deep soils. Copious waterings in the evenings, during the dry seasons would cause that fulness and succulency which we find in vegetables produced in the low countries, and in the Marsh Gardens at Paris, and in England at the beginning and latter end of the season.

"Watering is requisite for various purposes, as aliment to plants in a growing state; as a support to newly transplanted plants; for keeping under insects; and keeping clear the leaves of vegetables. One general rule must ever be kept in mind during the employment of water; that is, never to water when the sun shines. A moment's reflection will convince any one that this rule is agreeable to the laws of nature, for during rain the sun's rays are intercepted by a panoply of fog or clouds. All artificial watering, therefore, should be carried on in the evening or early in the morning, unless it be confined to watering the roots, in which case transplanted plants, and others in a growing state may be watered at any time, and if they are shaded from the sun, they may also be watered over the tops."

The water used for watering vegetables, if taken from a well or a cold spring, should be exposed one day at least to the shining of the sun, otherwise it will give a chill to the plants. Only a small quantity should be applied at once that it may have an effect similar to that of a refreshing rain: for water applied too plentifully sometimes washes away the finest of the mould from the roots or makes little cavities about them, which admit too much air.

(From the New England Farmer.)

LARGE TREES.

Mr. Fessenden,—In the town of Raynham, in the county of Bristol, Mass. near my dwelling-house stand two apple trees; the circumference of one is thirteen feet five inches one foot from the ground, and twelve feet two inches three feet from the ground; the other tree twelve feet two inches one foot from the ground, and eleven feet six inches three feet from the ground. The fruit is of a peculiar sort, in eating in March and April, and keeps till June. Tradition states the tree to be 130 years old. About the year 1780, one hundred and one bushels of apples were gathered from these two trees, exclusive of windfalls. However incredible this may appear it can be proved. The trees are now on the decline, and last year bore between thirty and forty bushels.

There is also a yellow willow standing about 10 rods from the above mentioned apple trees, which measures 17 feet in circumference 18 inches from the ground; the branches of this tree extend over a tract of land five rods and four and a half feet in diameter.

Yours truly, E. Hall.

Raynham, May 31, 1830.

TREATMENT OF VINES.

Many growers in Italy have for years past adopted the plan of binding and protecting their vines with iron wire. Latterly this system has been applied by Dr. Fisher, of Cornemburg, in Austria, not only to the vine, but to fruit-bearing trees in general, as a means of encouraging their growth and fructification, and as a substitute for annular incision. He recommends that the tree should be bound with iron wire, on the very spot where the incision has usually been made; that the wire should be tightly drawn two or three times round the trunk or stem, and then that both ends should be twisted together. The operation must be performed in winter, particularly in the month of February, before the sap has begun to circulate The ligature is to be applied to the branches and young shrubs from which fruit is desired; and is to be removed in summer after the bloom is off, and at the time when the fruit is beginning to expand. This may be done every year, taking due care to change the spot; and instead of iron wire a small hempen rope, steeped in oil, may be substituted.—*London paper.*

Burning the Vines of Strawberries.

A gentleman in the vicinity of Boston, has this season tried the experiment of burning the vines of strawberries as recommended by Rev. Dr. Miller in the New England Farmer, vol. vi. page 233. The experiment has succeeded perfectly—the vines having now a most vigorous growth, and promise of a great crop of fruit. Dr. Miller states that his vines treated this way yielded their fruit not only in a more convenient succession, but at least a third more in quantity, than others in the same soil.

RURAL ECONOMY.

[It is for the object, and on the terms adopted in the following, that we have so often urged the formation of similar associations in Maryland.]

The New Jersey Association for improving the Breed of Horses, and for purchasing a Stud Horse of the best blood from Virginia, Maryland, or elsewhere, that can be obtained for a sum of money not exceeding two thousand dollars, at the discretion of the Managers hereafter to be appointed by the Company.

Article 1st. The stock of the company shall be held in shares of twenty dollars each, certificates for which shall be signed by the president and secretary, the shares to be transferable, and the holders thereof to represent the company.

2nd. When one thousand dollars are subscribed as aforesaid, the stockholders shall be convened at the house of William Donghton, innkeeper in Moorestown, where the company shall be organised, and elect *viva voce*, or by ballot, a president, vice-president, secretary, and treasurer, who shall manage the concerns of the company, and hold their offices until the first Saturday in January next, and be styled the managers of the company.

3rd. After the first election the officers of the company shall be chosen in Moorestown, on the first Saturday of January annually, and hold their offices for one year, and until others are chosen.

4th. In the election of officers and determination of the concerns of the company, each share shall be entitled to one vote of such members as are present at the election, no votes to be given by proxy.

5th. As soon as the company is organized, a committee of one or more shall be appointed, to inquire and report to the president and managers of the company, the pedigree, performance, size, colour, price, &c. of such stud-horse, as shall come to their knowledge, worthy the attention of the company.

6th. The capital stock of the company may be increased to the sum of two thousand dollars, at the discretion of the managers of the company, in order to enable thec ommittee to purchase such a stud-horse, as the managers of the company approve of, and direct to be purchased.

7th. The managers of the company shall, on the first Saturday of January annually, lay before the company a just and true statement of the receipts and expenditures incurred in transacting the affairs of the company for the last year, and shall pay, or cause to be paid by the treasurer, to the stockholders annually, or oftener if expedient, a dividend of profits arising from said horse.

8th. No sale or transfer of the company's horse shall be made by the managers, or the company dissolved, without the consent and determination of two thirds of the members present at their annual meeting.

9th. No individual shall hold more than ten shares.

We the undersigned in order to carry into effect the foregoing constitution, do hereby subscribe for the number of shares set opposite our respective names.

New Jersey, June 10, 1830.

LADIES' DEPARTMENT.

(From the Journal of Health.)

RIGHTS OF CHILDREN.

What, exclaims Rousseau, are we to think of that barbarous education which sacrifices the present to an uncertain future, which loads a child with chains of all kinds; and begins by rendering him miserable, in order to prepare him, for one knows not what pretended happiness, which it is presumable he will never enjoy. The age of gaiety is passed in the midst of tears, chastisements, threats, and bondage. The author of Emilius here denounces the coercion practised on children, by which, in their tender years, they are compelled to sit at a table or desk in a school-room, in place of being allowed the free use of their limbs, and the enjoyment of their little gambols. Let them, he says, leap, run, and cry when they desire. All their movements are so many wants of their constitution, which thus seeks to strengthen itself. We must, however, distinguish carefully the true natural want, from mere whim. What is granted to a child, must be conformable to its wants, not its demands. If you wish to render a child truly miserable, you have but to accustom him to obtain every thing he wishes, since his desires constantly increasing with the very facility of gratifying them, you will be compelled, from sheer inability, finally to refuse; and this very refusal to which he is unaccustomed, will cause him more pain than the privation even of what he desired. At first he will want your cane, then your watch, then the bird which he sees fly past the window, then the star shining above him: he will desire to have all that he sees. Unless you be a deity, how can you satisfy him. With this understanding of what we wish to be understood by the rights of children—as opposed to their seclusion from the open air, and forced attention to books, the subjects treated in which are beyond their capacity—we give insertion to the following appropriate passage from a well-written tale, in one of the late British magazines. The person who speaks is supposed to be an Italian of the sixteenth century.—"It was surely the intention of Providence, that the faculties of early life should not be strained by labours hostile to the healthful growth of mind and body; and that the heart, the senses, and the principles, should alone be tutored in the first ten years of life. And yet how egregiously has the folly of the creature perverted the benevolent purposes of the Creator! With thoughtless, heartless indifference he commits his tender offspring to the crushing tyranny of pedants and task-masters, who rack and stupify the imperfect brain by vain attempts to convey dead languages through a dead medium; and inflict upon their helpless pupils the occult mysteries of grammar, which is the philosophy of language, and intelligible only to refined faculties. Ask the youth who has toiled, in prostration of spirit, through the joyless years of school existence, in the preparatory seminaries of Italy—bid him look back upon his tedious pilgrimage, and weigh the scanty knowledge he has won against the abundant miseries he has endured from the harsh discipline of monkish tutors, and the selfish brutality of senior class-fellows! His pride may prompt him to deny—but in honesty and fairness, he must admit—that the established system of education is radically vicious: that his attainments are meagre and superficial: that his knowledge of the world is selfishness and cunning; and that, to rise above the herd of slaves and dunces, he must give himself a second widely different education; more liberal, comprehensive, and practical.

"It was my happier fate to enjoy, until the age of ten, unbounded liberty. I associated with boys of my own age, selecting, for frequent intercourse, those most distinguished by strength of body, resource of mind, and a lofty and determined spirit. I disdained to be outdone in feats of bodily activity, and persevered with inflexible ardour, until I surpassed all my competitors in running, wrestling, swimming, and in every species of juvenile and daring exploit."

MISCELLANEOUS.

Accidents from want of Judgment in Blood-letting.

[The following is from an English paper—our own, if the whole truth were told, would furnish very many similar cases of suffering and death; from quackery in the treatment of diseases—almost every one wishes to make his son a doctor or a lawyer, and so it happens that the greatest dolts are often put to these professions. And what is the first thing they do? before they learn to compound a bolus, they take in hand the lancet and the pullikins, and the first negro or ordinary looking white man, who comes to the shop is ordered to roll up his sleeve, whilst young Esculapius *tries his hand upon him*, often times at the risk, and sometimes with the loss of the patient's life, to be sure the poor man is killed *secundem artem*, and the world is none the wiser for it.]

"Blood-letting is a very simple operation, so simple considered, that I have known youths during the first week of their apprenticeships suffered to perform the operation upon the living body, without any idea, however slight, of the relative situation or importance of the parts which might be injured, and without instruction or any other initiation than that derived from seeing an awkward fellow-pupil perform the operation. Many such operations have been performed without accident. Wherefore, then, should you enter into minute details and a long string of precautions on so simple a subject! Need I answer, that the accidental opening of the artery of the arm, when that of the vein was alone intended, has been known, not in a solitary case, but in many instances, to be attended with fatal consequences; that what by ignorance or want of skill has happened, may again happen, unless guarded against; that the artery and vein are in many instances so contiguous, that a difference of one-twentieth part of an inch in the depth and direction of the incision may make the difference between safety and the loss of life! and that in endeavouring to establish precautions, by which dangers which have occured may in future be avoided, I do no more than he who erects a light or a beacon to warn the mariner of his approach to shoals or rocks, which, without such friendly warning, might prove destructive. At an early period of my studies, I witnessed an unfortunate case, which has left an indelible impression on my mind A fine athletic young man, a brewer's drayman, pinched (by the edge of a cask coming in contact with a post) the skin which connected the little and the ring fingers to each other. He applied to a public institution, where he was attended to by a pupil, who did not even direct him to rest the limb; swelling and pain of the hand succeeded; from pupil he was transferred to house-surgeon,—he still went on badly; from house-surgeon he was transferred to assistant-surgeon, and from the assistant-surgeon at length to the principal surgeon, under whose care he had been nominally admitted from the first.—Abscesses formed first in the hand, afterwards to a great extent in the forearm. In opening one of these abscesses, the ulnar artery was wounded—the hæmorrhage was great—the mouth of the divided artery could not be found—the recurrence of hæmorrhage became so alarming that it was deemed necessary to tie the humeral artery. The operation was performed in the night, and it was supposed that the artery had been secured; nevertheless the bleeding from the forearm again returned, and the unfortunate patient expired! The limb was privately removed, injected and dissected, when the afflicting truth was discovered, that the ligature had not surrounded the artery which it was intended it should secure, but had included the radial nerve (the *Median* of Monro) which was in contact with the artery! The fatal results of error or want of skill in the ordinary duties of the surgeon are unfortunately very numerous. The drawings now shewn mark the progress of a case of bleeding from the arm, in which the artery was unintentionally wounded. Repeated and alarming hæmorrhages succeeded, and several successive, though unsuccessful operations were performed, to guard against the recurrence of hæmorrhage: at length amputation of the arm took place; but the unfortunate sufferer did not long survive. Another instance, which, from the holding of an inquest after the death of the patient, came under the notice of the public, must be fresh in the recollection of many now present: it also occurred at a public institution, and the verdict of the coroner's jury was—"Died from the accidentally opening an artery in the arm, and from the want of proper attention."—The work abounds in practical remarks, which will be perused with deep interest by medical men, and there are some observations on medical education, highly instructive to parents who intend bringing their children up to the profession.

M. La Beaume, the medical electrician, has made a very curious discovery, that the accumulation on the teeth, termed tartar, is occasioned by animalcolæ, which are visible on microscopic examination. According to this gentleman, they gradually burrow between the teeth and gums, penetrate the enamel, and enter the interior of the teeth, thereby producing the destruction termed *caries*, and also *tooth-ache*. Mr. La Beaume, after numerous experiments, ascertained that the true malic acid (the purified acid of the crab apple) not only immediately destroyed them, but dissolved the mucous collection which protected them. He therefore recommends the teeth to be brushed every morning, and also the tongue, which, when loaded with foul slime, is covered with similar animalculæ, with a lotion composed of malic acid and rose-water, and afterwards with the prepared areca-nut charcoal. This mode of managing the teeth is very beneficial, as it not only removes the collection, and, when used only once a week, prevents its re-accumulation, but cleanses the tongue and produces a relish for food.—*Athenæum.*—[Mr. La Beaume is a clever man, but we do not put implicit faith in his remedy—which is however, worth trying.]

[*Eng. pa.*

RECIPES.

PRESERVATION OF MEAT AND FISH WITH ICE.

Some experiments have been made, by the council of health of the prefecture of police in Paris, upon the preservation of viands and fish by means of ice. The experiments have been various, as much from the nature of the alimentary substances which have been tried, as from the time they were allowed to remain in the ice. The results are as follow:—1. That fresh viands of every sort, as well as fish, may be kept in ice for a long time without experiencing the least alteration. 2. That the placing of these substances in ice, when in a state of putrefaction, will stop the decomposition. 3. That the substances put in a fresh state in the ice, and kept so for a longer or shorter time, when they are withdrawn and exposed to the action of the air, putrefy, with the greatest rapidity; and if the temperature of the atmosphere is rather high, some hours suffice to bring on putrefaction and render them unfit for nourishment. 4. That these substances, when cooked after being taken from the ice, not only do not lose any of their good qualities, but become even more tender and delicate.

MODE OF PRESERVING NUTS IN A FRESH STATE.

A. B. Lambert, Esq. sent some specimens of nuts, which were quite plump and fresh. They had been preserved to so late a season (July) by a very simple but effectual process. When ripe they were put into a large brown earthenware pan, which, when filled with nuts, was placed in a deep hole in a dry part of the garden. The top of the pan being covered with a flat piece of wood, on which was put a heavy weight, the hole was filled with earth. By these means nuts may be kept in a fresh state till the season for gathering them from the trees returns.

MODE OF MAKING AND PRESERVING VERJUICE.

Some unripe grapes are put into a mortar, the stones being carefully extracted, as they would give a bad taste to the liquor; the juice is then strained through a cloth and put into bottles, which are placed in the sun, without corks: the liquor is left to ferment until all impurities are extracted. During six or seven days the bottle is filled up every morning; at the termination of this time the scum becomes white, and the fermentation ceases: it is then decanted, taking care to keep back the dregs. The bottles are well secured, so as to exclude the air; and it is then fit for use.

THE FARMER.

BALTIMORE, FRIDAY, JUNE 25, 1830.

☞ The diffused concern which must now be felt in regard to the breed of Improved Short Horn cattle, by the dispersion of Col. Powell's fine stock of that breed, makes it proper that we give some room to a further notice of their properties. The bull Bolivar, bought by Mr. Chew, at upwards of $400 at the above sale, arrived safely last Friday, and has we believe, gone to Hampton. The reader will find in another part of this number, taken from the May number of the British Farmer's Magazine, a letter from the Rev. H. Berry, a breeder and advocate of this breed, in which their properties and defects are noticed.

☞ We have some right to feel gratified at the result of the late sale of improved short-horn cattle at Powelton—we had the honour to receive three very handsome pieces of plate by the unanimous vote of the Maryland Agricultural Society, for having been instrumental in the importation and display of animals of that breed—much as they were admired, some thought it extravagant in a judicious farmer to give for the bull and two heifers five hundred dolls. each—yet it now appears that after the novelty has worn off, there is no diminution in the value attached to them by the public.

On Wednesday 16th inst. the sale of Col. Powell's stock of *improved Durham short-horned cattle,* imported or bred by him, took place at Powelton on the Schuylkill. Before the appointed time of sale, the lawn near the house was well filled with respectable visiters, who came either to admire or to purchase.

The morning was extremely warm, but the judicious arrangements which had been made for the display of the cattle and for the accommodation of the company, which exceeded one thousand persons, most of whom were intended buyers or amateurs, brought the whole under the shade of the beautiful trees which bound the park on the north.

In addition to the above we learn, that the auctioneer stated that Col. Powell reserved the right to make one bid in each instance, which he would make aloud and in person, as he was resolved that this sale should fairly test among practical farmers, assembled from various parts of the continent, the value of the breed which he had introduced, and in regard to which so much discussion had prevailed. It was remarked, that more attention was paid to the size of the udders and milking properties of the females than to any merit in handling, or peculiarities in form, indicative of the fatting propensity.

Sale of the Hon. J. Hare Powell's stock of Durham short horned cattle, at Powelton, near Philadelphia, June 16, 1830.

COWS.

Volante, sold to Mr. Perkios, of New York,	$305
Annabella, sold to Mr. Freeman, of Baltimore,	310
Stately, sold to Mr. J. A. Tamter, of Connecticut, - - - - - -	265
Virginia, sold to S. G. Wright of New Jersey,	240
Yorkshire Belle, sick, sold to Mr. Benedict, N. J.	151
Zenobia, sold to Dr. Thomas, of Baltimore,	410
Sarah, sold to " " " -	410
Delight, sold to Mr. Dager, of New York,	250
Romp, sold to Mr. Freeman, of Baltimore,	240
Maria, sold to Mr. Mitchel, - -	310

HEIFERS.

Marcia, sold to Mr. Roach, of Philadelphia,	240
Zulinda, sold to Mr. Perkins, of New York,	201
Adelaide, sold to S. Allen, - -	330
Lucilla, sold to Mr. Barnitz, - -	226
Calista, sold to J. P. Thompson, of Frederick City, Md. - - - - -	225
Nora, sold to Mr. Elmer, of Maryland, -	255

BULLS.

Bolivar, sold to Mr. Chew, of Maryland, -	405
Tecumseh, sold to Dr Thomas, of Baltimore,	510
Diego, sold to Mr. Evre, - - -	300
Orlando, sold to Mr. J. P. Thompson, of Frederick City. Md. - - -	300
Roderick, sold to Mr. Wright, of New Jersey,	201
Memnon, sold to Mr. Briscoe, - -	405

Mr. Powell bid in the following animals:—

Heifers—Ortella, $350; Garcia, 300; Eugenia, 250; Belle and calf, 200; Ophelia, 500. *Bulls*—Gallant, 225; Free Love, 300; six bull calves, 200 each.

Ophelia of three years, was bought in at $500, and some of the calves of four months at $300, one bull of 10 months at $400, and others at proportionate prices were reserved.

The animals which were not sold, are now in the possession of Charles A. Barnitz, Esq. of York, (Pa.) who, by his liberality, skill, extensive arrangements, fine land, and ample means, will be enabled to extend the advantages to be derived from this breed.

Thus we find out of the above list that three bulls and two cows sold together for $2,140.

Two bull calves, Orlando and Diego, sold for $600. Two heifer calves of 7 months, Calista and Marcia, sold for $465. And deducting two only from the total sale, viz: *Yorkshire belle,* a cow, which was sold with a knowledge and understanding of its being disordered, for $151; and the six days old calf above mentioned, the sale of the remaining 21 head will average $320 each.

Immediately after the sale, tables upwards of 300 feet long were spread, under the shade of the same beautiful trees which had protected the company during the hours of business; in the furnishing of which, no less taste, judgment and liberality were manifested by our host than in the management of his other affairs. The tables were constantly replenished as the chairs were successively filled; and the gathering storm alone broke off the social and pleasant communication between Col. Powell and his visiters.

☞ AMEMICAN SILK.—We learn from the Fayetteville, N. C. Observer, that James Smith, Esq. of Bladen county, will have at least *one hundred* pounds of sewing silk, besides a quantity of floss, worth about $700, the product of 200,000 worms, this season, attended by a few small negro children. Let this be an encouragement to others, to engage in this profitable business.

SPURIOUS WINE.—Most of those who have visited Paris are aware that nine-tenths of the wine and liquors sold there as foreign are of true French composition. The *Journal des Connaissances Usuelles* gives the recipes for nearly a dozen of these preparations. We extract the following:—To make port wine, take of old red Burgundy three quarts, *ratafia des quatre fruits* one quart.—To make rum, take of figs and raisins, each one ounce, of ox leather one drachm, pimento eighteen grains, saffron five grains, and brandy two pounds twelve ounces. Bruise the figs and the raisins, cut the leather into small pieces, pound the pimento and the saffron, and let the whole soak for fifteen days in the brandy.

POISONOUS CHEESE.—Several persons were poisoned at Boston, recently, by eating cheese at a Grocer's store in that city, for their luncheon. A portion of the cheese was taken and analyzed by a physician, but no traces of copper or any other metallic poison, could be discovered in it. The cause therefore of the poisonous character which cheese sometimes assumes, still remains in the same obscurity as before.

It is stated in the Boston Daily Advertiser, that this particular cheese had been received in a lot of fifty or sixty from a very respectable dairy, and neither its appearance nor its taste, indicated any peculiar difference from the rest of the lot.

In the *Boston Medical Journal* there is a narrative by Dr. Higginson, of some cases of poisoning by drinking milk, which have lately occurred in that city. Four of a family consisting of seven, the lady, her child (a girl of four years,) and two servants, one a young woman, and the other a little girl, were taken, it seems, about two hours after breakfast, with nausea and vomiting. The three remaining members of the family, being males, were absent. They were seized with violent pain in the stomach, and some doses of ipecacuanha having been administered they vomited a great deal. The countenance of the lady was deadly pale, and her expression wild. When Dr. H. was called in he had no doubt that the affection arose from some noxious substance introduced into the stomach. They had taken their usual breakfast of bread and butter, milk, eggs, and coffee. Large doses of laudanum and senna were prescribed by him to restore the regular action of the bowels, which produced much relief to the patients, and the next day they only exhibited a little weakness. The copper boiler, which had not been cleaned for some days, and some milk from the earthen pot, from which the milk at breakfast was taken, were analyzed, and the subacetate of copper was detected in the milk in considerable quantities. This proves that the use of copper articles in cookery is dangerous, unless they are cleaned every day.

Sir J. Sinclair has ascertained, by a series of experiments conducted under his superintendence by G. Page and Co., dyers, Prince's-street, that permanent and beautiful colours in silk, cotton, and woollen goods may be produced from the flower of the potato. Sir John says that these colours are "equal to the finest tints procured from the most valuable foreign materials, and in richness of shade they are likely, in some cases, to be even superior;" and he adds, that "it is a peculiar advantage attending this discovery, that the cutting of the flowers of the potato is not prejudicial to the plant, on the contrary, by preventing the formation of the seed or apple, there is reason to believe that it will add to the weight and improve the quality of the root."

LATEST FOREIGN NEWS.

Except an arrival at Norfolk, which brought verbal intelligence from England to the 10th May, the following is the only items of foreign news, since our last. On the 10th May the king remained in a very dangerous state.

From Havre.—The ship Harriet, Capt. Johnson, arrived at New York on Thursday, last, from Havre, having sailed 7th of May. Unfortunately, Capt. J. brought no papers Cotton remained about as per last accounts. Nothing of special importance had occurred in politics.

Extract of a letter from Havre, dated May 6.

Our cotton market continues extremely dull, and we consider that there is a small decline in prices. We have accounts from Liverpool to-day to the 1st inst. Their market was also dull, and the decline during the preceding week was 1-8d.

The decline may be from ½ to 1 centime.

SALES AT HAVRE, MAY 5.

Cotton.—44 bales Louisiana, at 1f.; 36 bales Louisiana, damaged, 71c. a 87.; 38 do. fair do. 94c.; 52 bales Georgia, 96; 25 do. do. 95; 239 do. do. 95; 135 do. do. 91; 200 do. Pernambuco, 1 13; 34 do. Bahia, 97; 2600 do. Bourbon, 69f. 75.

Tea.—400 boxes gunpowder, 4f. 60c.; 87 half boxes do. 4f. 63c.; 100 chests hyson, 2f. 75.—in bond.

Coffee.—100 bags Havana, 93f. 101c. public sale: 43 bbls. Jamaica, 42½f. in bond; 295 sacks Haiti, 39¾f. 49 tcs. Martinique, 113¾f.; 46 do. do. 113 1-3f.

South America.—By an arrival at New York, we learn, that the Congress of Columbia, has elected a President and Vice President, and that Bolivar, had retired to private life.

Prices Current in Boston, June 18.

Apples, best, bbl. .400 a 5.00. *Beans*, white, bushel. .87 a 1.12. *Beef*, mess, bbl. 9.00 a 9.25; cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.12 a 5.25; Genesee, 5.25 a 5.87; Rye, best, 3.50 a 3.87. *Grain*, Corn, bu. .53 a 55; Rye, .65 a .67; Barley .67; Oats .37 a 42. *Hogs'-Lard*, 1st sort, new, lb. 8. a .8.50. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, —— Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel —— *Wool*, Merino, full blood, washed, .40 a .50; do. do unwashed, .20 a .30; do. three-fourths, washed, .35 *a* .40, do. half blood, .33 *a* .35; do. quarter, washed, .30 *a* .33; Native, washed .25 a .30; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, June 19.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9 a .11; Alabama, .9 a .12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .12 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a 5.00; Canal 5.12½ a 5.50; Balt. Howard st. 5.12½ a ——; Richmond city mills, —— country, 4.87½ a 5.00 Alexand'a, 4.87½ a 5. Fredericksburg 4.75 a —— Petersburg, 4.75 a 4.87½; Rye Flour, 3.37½ a 3.25; Indian Meal, per bbl. 2.50 a 2.62½ per hd 12.25 a ——. *Grain*, Wheat, North, 1.08 a 1.10; Vir. — a 90; Rye, North, 63 a 65; Corn, Yel. Nor. .53 a 54; Barley, — a — Oats, South and North, .32 a .38; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8 00. *Provisions*, Beef, mess 9.25 a 9.75; prime 5.75 a 6.25; cargo 4.50 a —— Butter, N. York, 12½ a 15; shipping, .6 a 11; Lard, .8 a .8¼; Pork, mess 13.25 a 14.00; prime 9.75 a 10.00.

Prices Current in Philadelphia, June 22.

Bees-wax, yellow .21 a .22; *Beans*, bushel $.75 a .80; *Beef*, mess 10.00 a —— prime 8 a 9, cargo 7; *Butter*, No. 1, 6 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 4.62½, fine, 4 25 a —— Rye 3.25 a —— Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat .95 a .98 Rye 48 a 52, Corn l. c. white, .35 a .37, l. c. yellow, 38½ a .40, u. c. round, 41 a 45; Oats .28 a .35; Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia 9 a 9½, Western .9 a .9½; *Hemp*, 210 a 220; *Lard*, .- a .7; *Oil*, linseed, 71 a —; *Pork*, mess, 13.50 a ——, prime 11.50 a —; cargo 11. *Rice*, 2.25 a 2.50; *Tobacco*, Kentucky .4 a .7, Vir. .4 a .5½. *Wool*, common washed lb. .25 a .30, half blood .37 a 40, three quarters blood .40 a .45, full blood 47 a .50; unwashed, generally 6 cents less, according to quality. &c. &c.

Prices Current in Charleston, June 14.

Cotton, Sea-Island, .22 a 28. Stained .12 a 16. Santee, .23 a 25. Main, .23 a 25. Upland, inferior and common .9 a .10 fair to good, .10 a 10½, prime to choice, .10¾ a .11¼. *Rice*, prime, $2¾ a .2½. Inferior to good, do. $1.87½ a .2.25 *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5 a .5.37½. *Corn*, North Carolina, .46 a .48; Maryland, .46 a .49. *Oats*, .38 a .40; Peas, 66 sales. *Hay*, prime Northern, .87½ a $1. *Whiskey*, Philadelphia and Baltimore, hhds. .24½ a .25; bbls. 25½; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork*, Mess. .13½ a 14; Prime, .— a .11, scarce. *Bacon*, .7¾ a .— cents; Hams, .— a 10; Lard, 8. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

MACDUFF,

FOR SALE,—PRICE $300.

He is a full bred Durham short-horned bull, bred by Mr. Powell of Philadelphia: red and white, calved in June, 1827. *Dam* Annabella, sold at the auction of Mr. Powell's cattle on 16th June, to Mr. Freeman of Baltimore for $310.—*Sire*, Mr. Powell's celebrated Bull *Malcolm.*

The stock from Macduff has proved good, the bull may be seen on the farm of the subscriber near Newark, New Jersey. Letters directed to him, 27 Nassau street, New York, will be attended to. A. DEY.

New York, June 22, 1830.

FARMING IMPLEMENTS.

The subscriber has now on hand, for sale, a supply of Grain Cradles and Scythes; also, Grass Scythes and Sneeds: both hung and separate—Hay Rakes and Forks, Scythe Stones and Rifles, Hoes, Spades, Shovels, Manure Forks, &c.—*all warranted prime articles:* together with his usual assortment of Ploughs, Cultivators, Wheat Fans, Straw Cutters, &c.

JONATHAN S. EASTMAN,
No. 36 West Pratt-street.

ALMANAC.

1830. JUNE.—JULY.	SUN. Rises.		Sets.		Length of days.		Moon. sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 26	4	34	7	26	14	52	11	35
Sunday,...... 27	4	34	7	26	14	52	morn.	
Monday,..... 28	4	35	7	25	14	50	0	15
Tuesday,.... 29	4	35	7	25	14	50	0	45
Wednesday, 30	4	35	7	25	14	50	1	24
Thursday,... 1	4	36	7	24	14	48	1	48
Friday....... 2	4	36	7	24	14	48	2	20

Moon—First Quarter—28th, 3h. 3m. Morn.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKETS —New wheat comes in slowly, and we can hear of the sale of but between 4 and 500 bushels during the week. New white brings readily $1.05, and $1 has been offered for a small lot of new red. There is no old wheat in market. In flour business is very dull; the wagon price of Howard street is $4.75. Beef is also extremely dull, and it must be very superior to command our highest rate.

TOBACCO.—Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 8.00 a 10.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 3.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14.00 a 18.00.—Fine yellow, 20.00 a 25.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.——Kentucky, 4.50 a 7.00. Cuba 18 a 28.—St. Domingo, 8.00 a 15.00. The inspections of the week are 431 hhds Maryland and 50 hhds. Ohio; and 2 hhds. Kentucky—total 483.

FLOUR—best white wheat family, $6.00 *a* 6.50—super. Howard-street 4 87½——city mills, 4.62½——Susquehanna, ——; CORN MEAL, bbl. 2.25——GRAIN; best red wheat, new 1.00—; best white do. new .1.05—Maryland red 80 *a* 87½—CORN, white, .40 *a* .41—; yellow .41 *a* .——RYE, .48 *a*——OATS, .30 *a* .31——BEANS, .90 *a* 1.00—PEAS, .65—CLOVER SEED, 3.75 *a* 4.—TIMOTHY, 2.50—ORCHARD GRASS, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—BARLEY, — *a* ——FLAXSEED, 1.00 *a* ——COTTON, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10——WHISKEY, hhds. 1st p. .21½ *a* –; in bbls. 23 *a* 23½—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22-three-quarter, .28 *a* .30-full do. .30 *a* .35, accord'g to qual.—HEMP Russia, ton, $210 *a* 215; Country, dew-rotted, 120 *a* 125-water-rotted, 145 *a* 150—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. —— *a* 4.50 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.50 *a* 4.00——BACON, hams, Balt. cured, .9 *a* .10—Feathers, .33 *a* 34—Plaster Paris, cargo price per ton, 3.75 *a* —— ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.50 *a* 5.00—Pine Wood, by the vessel load, 1.75 *a* 2.00—Oak, 2.75 *a* 3.—Hickory, $4.00.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by JOHN D. TOY.

AGRICULTURE.

(From the British Farmer's Magazine, for May, 1830.)

ON THE ROT IN SHEEP.

Review of "Observations on the Disease which has lately been so destructive to Sheep, called Bane or Coath; particularizing the Causes and minutely describing the modes of effecting its Cure; and pointing out those means which ought to be adopted to prevent its recurrence. By J. Davey, Esq. Bath." London. Ridgway, 1830.

This is an interesting, because a useful and valuable paper. It was written for and read at the last annual meeting of the Bath and West of England Society, and printed at the request of the members. The dreadful havoc caused by the rot among the flocks last autumn, and the consequent losses sustained by the flock masters, render the information contained in this little half-crown pamphlet of the greatest importance to every one connected with sheep husbandry. The author's rules for the prevention of this baneful malady are nearly what has been long known amongst farmers, though not always acted on with requisite care. To those who have been or may be too remiss in the autumn management of their sheep, this publication will be a spur, and the curative treatment which he recommends is certainly deserving the attention of every shepherd in the country.

The account of the disease and its symptoms have been closely investigated by Mr. Davey, and he has arrived at his conclusions after careful examination of the effects of the malady in all its various stages and appearances externally as well as internally. He seems to think that the disease precedes the attack of the insects or animalculæ which invariably accompany the rot; and so unaccountably do these animated bodies sometimes present themselves, (as in the liver of an unborn lamb for instance,) that he is half disposed to admit the truth of the long exploded doctrine of equivocal generation. This, however, is one of those obscure processes of nature which is hardly worth the notice of the practical man; nor has the admission or denial of it any bearing on the management of the useful animal under consideration. If we can become sufficiently acquainted with the outward circumstances which induce the malady, and attain a knowledge of the remedy, to arrest its progress and perfect a cure, is all that a flock master can require. This information Mr. Davey presents to his readers, as the following quotations show.

The best means for preventing the rot, the author states to be attention to the three following things, viz. food, local situation, and changes in atmospheric temperature and weather. Of the first, it is observed, that "experience has shown us innumerable instances that sudden transitions from one kind of food to another in animals, and even in the being man, are productive of injurious effects." If, therefore, sheep have been for some time depastured on dry or scanty herbage, and from thence suddenly removed into a fresh luxuriant meadow, especially during autumn and after the autumnal rains have set in, it is ten to one but that the constitutional health of such sheep will be jeopardized. Or, if removed from a comparatively dry to a lower situation, where the air is less pure and loaded with vapour, the same bad effects are likely to follow. Throughout the whole autumn and winter sheep require a dry lair, and to counteract the effects of the humidity and cold of the season should have a due allowance of good hay.

"And a still more certain and effectual mode as it regards our subject may be added to this; it is to allow the sheep plenty of salt to eat. We consider this simple article of very great value and efficacy, and forms an important feature in the matters we shall prescribe. The action of the salt given to the sheep will be to stimulate the digestive organs, and perhaps restore the balance of chemical actions in the stomach, as far as this organ is capable of control by chemical laws; and it will be materially assisted if it contains a more alkaline ingredient with it, such as common washing soda, which is easily attainable, and which may be mixed in the proportion of one ounce or more to the pound of salt. If, however, the sheep reject the soda, leave it out and confine them to the salt; many sheep dislike the salt at first, but they may soon be habituated to it, and made partial to its taste.

"With regard to transitions from rich to poor feed, or *vice versa*, it should be managed gradually and cautiously, and then these changes, so far from being injurious, will be highly salutary and improving. We will suppose a farmer purchases a stock of sheep; he ought to be acquainted with the kind of soil and herbage to which they have been accustomed. We will imagine that the sheep have been bred and fed on the dry and almost sterile downs in the chalk districts; and that he then takes them to his farm in the low rich meadows of Somerset, or even down to the marshes in the south-west of the county. What can be expected from so violent a transition, but derangement of the digestive functions; or at least a predisposition to disease? The careful farmer will be particularly cautious under these circumstances. He will select for them the driest parts of his farm; he will fold them with more than ordinary care in airy situations. They may be allowed to range the dry lanes and roads in the vicinity, provided they do not contain improper herbage, which is not often the case; or they may be confined in the barton; for some hours of the day, it will be always advisable to make them take plenty of exercise. In short, a variety of expedients may be resorted to, to prevent their overfeeding on a richer aliment than that to which they have been accustomed, until they are become habituated to it: a few weeks' discipline in this way will be productive of considerable benefit.

"It has been supposed by the farmers, that there are certain species of plants or grasses which are actually poisonous, and that the sheep, by eating them, are made ill; but after inquiry into the alleged instances of this occurrence, I am inclined to doubt the fact altogether. In no case could I obtain satisfactory proof of such a circumstance, and I cannot help thinking it would be contrary to the wise economy of nature, which has taught the sheep as well as other animals, to reject those species of plants which would poison them. And besides, I am utterly at a loss to account for the mode of action in those pernicious plants as compared with the results. And also I cannot see why it should not invariably bane them at all seasons, wet or dry, hot or cold, which is contrary to experience. Now then we have noticed bad supply of food, bad qualities of it, and great transitions from one kind to another; all these circumstances are in the power of the farmer, and he can adopt such measures as his own judgment will suggest, to avoid the ill effects consequent on them. If he should be hindered from arranging these things properly, from motives of supposed economy, he will find such economy altogether a delusion, and for the sake of a few shillings'-worth of grass will run the risk of losing his flock; some fatal instances of this kind I have seen, and have heard of more.

"Our second particular is, as to the localities of a farm. We have already adverted to the fact, that some farms are situated on stiff, clayey, or adhesive soils; and we should at once say that such farms are by no means fit for the rearing of sheep; they cannot at least compare with the downs. Still, however, much may be done to ameliorate this state of things, and which ought to be effected, not only for the purpose under consideration, but for the general advantage and benefit of the farm. These objects are fully treated of in works which have agricultural improvements for their specific object, and to such the farmer's attention is particularly directed."—pp. 28—30.

The author next adverts to the deleterious effects arising from stagnant pools and ditches, showing that from thence noxious vapours are generated and malaria is evolved, always hurtful to animals requiring pure air.

"As to those farms which are entirely situated in marshes, it amounts almost to a certainty that the sheep will be diseased in a bad season. Where this is not the case it only resembles the miracles which sometimes occur, and for which we cannot account. A man may fall from a house, and not break a bone, but it is fifty to one against both his limbs and his life. I suspect, however, that if an accurate inquiry were instituted into the very few cases of flocks not being affected under such circumstances, it would appear that they have been well kept and attended to previously, and thus the predisposed weak habit of body had not been formed. But the exceptions in these cases are comparatively so few, that no sensible man will run so great a risk as is involved.

"Under such unfavourable circumstances as we have been noticing, if the farmer has no chance of removing the sheep, or putting them out on healthier farms to keep, he will act more wisely even in disposing of his flock, than in incurring such great hazard as he must do with them.

"The diseases which occur in the sheep bred in marshy situations, are usually much more violent and aggravated than they are elsewhere; indeed the sheep do not generally outlive the acute state; their existence is terminated before the formation of the flukes, and before dropsical appearances are observable, their liver is mostly found in a state of suppuration or gangrene, which the farmers usually term rottenness; and even if they live to bring forth their lambs, they then die almost immediately, the chances are certainly greatly against recovery in these cases.

"To the observations we have advanced with regard to the farm, we would add that the farmer will see the necessity of not confining his attention exclusively to the lands he occupies; he should acquaint himself with the peculiarities of those which are adjacent, thus mutual improvements may be effected, and a whole district rendered healthful, by a combination of judicious and well-directed efforts, while such exertions would be by no means expensive; and even if such a co-operation could not be attained, he would know the unhealthy grounds contiguous to his own, and thereby have a notice of the existence of even a remote evil which he could easily guard against. A knowledge of all these particulars and of the relations they bear to disease, if once gained, is gained for life. And we cannot too much regret that apathy and want of foresight, which is too prone to leave all these matters to the direction of unexplored causes, and the government of blind chance, which, sooner or later, is almost sure to rap the knuckles of the inattentive; for experience is a tremendously dear school to study these matters in."—pp. 32, 33.

Defending the flock from severe or sudden changes of the weather is earnestly advocated by Mr. Davey; he recommends housing, or shelter of some kind, wherever practicable, as an excellent preventive against rot, on which head he adds:—

"A great many things may be done, under all the circumstances we have been noticing, to make the condition of the sheep at all times tolerable, if not comfortable; but when a negligent inattentive shepherd pays little or no regard to these particulars, but allows things to take their chance, when he neither studies the causes of evil nor seeks a remedy, which is so generally within reach, it is no wonder that such distressing losses sometimes occur, and that such lamentable experience, so often repeated, should still have taught no useful lesson.

"But supposing that, notwithstanding all possible care, the sheep should become diseased, what is then to be done? This brings us to our second question, viz. how the evil is to be remedied?"—p. 36.

In order to be able to apply the remedies at the proper time and manner, it is necessary that the shepherd make himself well acquainted with the first symptoms of disease, whether it be hypatitis* or gall-sickness, there being a great advantage in taking the disorder in time. "The question ought not to be how the flukes are to be destroyed, and then absorbed, but how their generation is to be prevented." The effects of disease are indicated by a want of appetite, sluggishness in the action of the animal, a heavy dulness and yellow hue of the white of the eye. If such appearances happen soon after any considerable change in the weather or of pasture, or of too early shearing, it behoves the shepherd to be on the alert, and without delay to treat the flock and administer the medicines as follows.

"We recommend that the diseased animals be housed for a few days; that they be allowed a little good hay, and plenty of salt may be administered with it. It will be proper also to bleed them immediately to the extent of from eight to twelve ounces; and this it will be rarely necessary to repeat; such a necessity will appear when there is a buffy coat, or very cupped appearance to the blood after it has coagulated; another bleeding at the end of two days may then be required. It is not, however, to be further repeated, because this blood may also be buffed or cupped; and indeed in most cases once will be found sufficient.

"On the evening after the bleeding, give them five grains of calomel, and five grains of antimonial powder, made into a ball with a sufficient quantity of soap. On the following morning give another ball, composed of eight grains of aloes, forty grains of nitre, made up as before with soap, or the aloes may be given as a pill with the soap, and the nitre as a drench in warm water. Continue a drench of the nitre alone a day or two longer; this will generally be all that is required."—p. 38.

"But valuable as these medicines are, it is not to be supposed that they can exert a magical influence: their efficacy will be precisely proportioned to the earliness of the time in which the first symptoms of disease are noticed. Thus although our course, as we have directed, may generally suffice, if the sheep be taken in time; yet if they are farther gone, it may be necessary to repeat it twice or thrice, or even more, allowing the sheep a day's run in the fields between, and taking care that the circumstances which first induced the disease be guarded against.

"When we direct the sheep to be housed, it is not meant that they be kept in close confinement; the objects to be attained are preserving them from wet or inclement weather, while they are under the influence of medicine, and also keeping them from filling their stomachs with grass during the period."—p. 39.

If the sheep are infected by the gall-sickness, then the mode of procedure will be somewhat different, and regulated by the appearance of the symptoms.

"When listlessness or stupor prevails to a considerable degree, or if there is a fulness of the veins, or if the pulse be above 100, then it will be proper to bleed once to the extent of about eight ounces. We shall then have occasion to resort to the first dose in the last prescription, viz. five grains of calomel and five of antimony.

"Next morning give five grains of antimony and forty grains of nitre, of course including the usual allowance of salt, which is always to be presented. After this, a few hours' run in some good dry grass may be allowed. The next day, the medicine prepared as follows is to be administered. Take of oak bark (bruised) four ounces, water four pints, boil them gently for twenty minutes. Strain the decoction, and add one ounce of the diluted sulphuric acid, and give the sheep three tablespoonsful every morning and evening. If two drachms of green copperas (sulphate of iron) be added to the quantity of decoction here ordered, it will greatly enhance its powers. Any other quantity may be made by keeping the proportionate quantity of the different ingredients.

"This last dose is to be continued till the symptoms of disease have subsided. In very wet seasons it may be necessary to repeat it for a fortnight; in common seasons not so long."—pp. 40, 41.

The farmer may, perhaps, imagine that these particulars are too many for the attainment of a life occupied as his is, but he need not be afraid of soon gaining the necessary knowledge. To assist him, the author has added a list of the articles which he should keep by him, which we subjoin:—being furnished with grain scales he must purchase,

	s.	*d.*			
2 oz. of calomel will cost	1	6	making	192	doses.
4 oz. of antimonial powder,	2	6	"	384	ditto.
4 oz. of aloes -	2	0	"	192	ditto.
1 lb. nitre - -	0	10	"	144	ditto.
½ lb. diluted sulphuric acid	0	4			
½ lb. sulphate of iron	0	6			

making together 7*s.* 8*d.*, which will furnish him with a stock greater than he may have occasion to use for a long time.

"Of course the farmer will see the necessity of keeping each article dry, in a separate bottle and well stopped, and legibly labelled on the outside, with the precaution of having the word 'poison' written under each to prevent accident. All the bottles may be lodged in a snug box, fitted up as a medicine chest, which should be always kept locked, and safely deposited in some dry situation in the house. His grain scales, a Dutch tile, and a palette knife to mix his medicines will complete his stock."—p. 43.

One word of caution in conclusion. Beware of applying any of these medicines to his own species. They are too dangerous to be used unskilfully. No experiments should be tried with them.

HINTS ADDRESSED TO THE FARMERS OF ESSEX COUNTY.

(Concluded from page 114.)

The gains of husbandry, even under the most successful cultivation, must be small, and in our system of farming must arise from small sales and small savings. But if the gains are small the risks are proportionably small; and if there are none of the extraordinary and splendid accumulations there are none of the painful anxieties and extreme risks of commercial life; and men are secure from those habits of inordinate speculation in which if they do not, as is very common, in the end lose all their property, they too often purchase success at the expense of all honor and principle. We have often heard it remarked by intelligent merchants in Boston, that of those engaged in trade from one cause or another more than three fourths become bankrupt or die insolvent. We have no doubt of this fact; and it ought to restrain the anxiety and morbid ambition which prevails so generally among parents, to place their children in trade and to bring them up in the expensive habits of city life. A good farm well managed will yield a fair compensation for labor; and there are no situations among us more truly independent than that of the man, who, to the advantages of a well managed farm, adds the profits of some handicraft trade, which gives him employment in inclement weather; and during the long vacation from agricultural labors, which winter brings with it. Two great drawbacks upon the farmer's prosperity have hitherto been the use of ardent spirit and the extravagant price of labor. The former evil is vastly diminished; and we believe that more than one half of the farms in this county will this year be managed without the use of a drop of ardent spirit; in truth, it is becoming quite disreputable to use it, and no custom can stand long against public opinion, when it is once thoroughly set against it. The price of labor is still inordinate, but this must come down. The price of labor ought to be regulated by the price of bread and clothing. Formerly wages were considered ample when a man could earn a bushel of corn or grain in two days; now he can often obtain two bushels in one day; formerly the laborer was well paid if he could earn the cloth for a shirt in three days, and now he can obtain the cloth for three shirts by the labor of one day. The price of all mechanical labor, of which the farmer must sometimes avail himself, is most exorbitant, such as that of the carpenter, the wheelwright, the blacksmith, the mason. The blacksmith charges you a dollar and a quarter or a dollar and a half for shoeing your horse, and two dollars or more for shoeing your oxen. The materials of iron and coal for the horse cost about thirty-four cents, and for the oxen not twice as much, and the time employed does not exceed two hours for each animal. Other articles of the labor are equally dear. The mason charges you two dollars and sometimes two dollars and a quarter per day; that is, in a trade in which there is no mystery, for labor which is not harder than common farm labor, and where the tools cost almost nothing, he must receive enough per day to purchase more than four bushels of corn, or nine bushels of potatoes, and more than twenty yards of good cotton cloth for sheeting or shirting. We grudge no man his honest gains; but while every effort is made to grind down the farmer to the lowest possible price for his products, we can but hope that the time will come when the price, which he himself is obliged to pay for labor, will bear a juster relation to the compensation which the community is willing to make him for his own. These, as we observed, are great drawbacks upon the farmer's success; they compel a prudent man to forego many improvements which he would otherwise make, and to husband his resources with an extreme frugality.

We inquire in the last place to what sources may a farmer look for a remuneration of his labor. The farms in the county, as we have remarked, are small; the system pursued therefore must be adapted to this fact. The raising of stock, either neat cattle or horses or sheep, must be left to those parts of the country where land is cheap, pasturage abundant, and hay finds no market. It is not certain however that cattle may not be fatted here to advantage, or as the butchers term it, topped off or finished; that is, purchased in the autumn in good condition and sold improved in the spring; and the increase of weight and of price be a fair equivalent for the cost of provision. This will be finding the best home market for our farm produce, and the valuable manure obtained will be more than a compensation for the attendance. There is nothing so much against this system as the great profits or commissions of the butchers. The experiments of several farmers in this matter in a small way have been such as to favor rather than to discourage further trials; although the extraordinary depression in the Brighton market the last year has occasioned a serious loss to some extensive feeders in the interior.

The Essex farmer must make two inquiries for himself. The first what can he produce on his farm for the necessary consumption and support of his own family? The farming produce, which goes without waste to this account, is always disposed of to the best profit. Here, by the way, let us ask what is the reason that throughout the country there is not one farmer in ten, perhaps in forty, who has any thing like a good kitchen garden? the principal labor of which might be done by his own children, or domestics, and which would contribute greatly to the support, the health and the luxury of his household, by a bountiful supply of early and various vegetables and fruits. Under this head too we will suggest only one rule, which is, that he should as much as possible rely upon the produce of his farm for his support; that is, live as far as possible upon its products.—A good farm may be made to yield a plenty of meat, milk, butter, cheese, poultry, eggs, bread, vegetables, cider, fruit, honey, and wool;—and when a man can have all these in abundance, need he complain of want; and will he not be as comfortable and his children as healthy to be fed upon good bread and milk as upon tea, coffee, and sugar, which are such a drain upon our earnings; and ought he not to be aware, above all, of the consuming moth of a butcher's bill, who must furnish overloaded tables with meat at least three times a day; and the expense of foreign and superfine flour, instead of the substantial brown wheaten loaf or Indian bannock, with which our fathers were satisfied.

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* A little animal resembling a full bladder, attached to the coats of the different viscera.

The next inquiry, which the Essex farmer should make, is what can he raise to sell?

Hay is one of the first articles, and will yield ordinarily a fair profit. We have this advantage, that there is not a town in the county, which may not find a market for its hay. The Ipswich farmers have for years found a profit in transporting vast quantities to Boston market by land in spite of the competition of the neighboring towns, and the screwed hay from Maine.

Fruit is another article for which a ready market is generally found. The produce of the orchard of one farm in West Newbury* has been equal for several years, before the two last, when the owner is suffering from the canker worm, to six or eight hundred dollars per year.

Indian corn is the next crop which should claim the farmer's attention. This crop is the greatest blessing that ever was bestowed upon any country. It is not a more exhausting crop than potatoes or any other crop, as may be ascertained from the result on those places where it has been raised for years in succession on the same ground, with tolerable success. The cost of the seed is a mere trifle. The labor of cultivation will be greatly lessened when we learn to use the horse plough and the drill harrow more and the hoe less, and renounce the old and useless systems of hilling and half hilling. The best product has been obtained by planting it in drills from north to south, that it may have the full benefit of the sun. A successful trial, we are told, has been made the last year at the alms house, in Haverhill, of cultivating it on a level surface without hilling at all, with a horse harrow, and not putting a hoe to it after the planting, the children of the establishment having been employed to weed among the plants. The produce of corn fodder from an acre for the feed of any neat stock, if well cured and chopped, is nearly equal to a ton of English hay. There is no crop which returns so much to the ground; potatoes return nothing where the crop is sold. The fodder from an acre of corn when the crop is good, in the opinion of Chancellor Livingston of New York, will pay the labor of cultivation; and if the manure is furnished by the farm the grain may be considered as clear profit.

The dairy should be the next object of an Essex farmer. All the butter and spare poultry which the county can produce may be sold as fast as it is made and reared, in the several towns and villages which are accessible to different parts of the county. These are articles therefore for which the farmer may command ready money. By the way, however, we greatly object, unless it is very near, to the farmer himself going once a week to the market where he is most likely to be tempted to waste a whole day and incur needless expense. We recommend therefore that our farmers should do as is done in many parts of Worcester county, where some established market man goes once or twice a week to Boston and sells the produce of his neighbors in poultry, butter, eggs, &c. on a fair commission. The profits of a dairy under the best management will not be great—but may be a fair compensation, especially if the cows are well fed in winter and succulent food is provided for them as it may easily be in summer, by the raising of corn sown for the purpose of cutting green and keeping up their milk, when the pastures fail.

The next object is the fattening of pork. We cannot in Essex county raise our pigs so cheaply as we can purchase them from New York and Vermont; but if we purchase them at a suitable age and of a good kind, why may they not be fattened here without loss and perhaps with a small gain? If there is no loss, the manure obtained and the consumption of the offal of the dairy and farm is of great moment. We are aware that much must depend on the actual price of corn here, for on that we must mainly rely for fattening them; but this is always as low on the seaboard as it is one or two hundred miles in the interior. On this subject we do not presume to speak with confidence; but we propose it as matter of fair and accurate experiment to some of our intelligent farmers, feeling a strong persuasion, especially if boiled carrots are as beneficial as they are represented to be, that the result will be favorable.

We shall speak of but one subject more, in which we call upon our female readers, should any such honor our remarks with a perusal, to aid in the labors of husbandry and to share likewise liberally in its profits.

The town of Mansfield, in Connecticut, produces annually, as appears by authentic statements, from forty to fifty thousand dollars worth of silk; almost the whole of which from the hatching of the worms to the reeling of the silk is the produce of female and children's labor. The expense of capital, required to begin an establishment on the Connecticut plan is, we are told, very small indeed. Is not Essex county as favorable as any part of Connecticut to the raising of silk; and are not our wives and daughters as intelligent and as well disposed to be useful and industrious as any? We throw out these hints on a subject, on which we do not profess to have any experimental knowledge, for their consideration.

We have extended these observations further than we had designed; at the same time we have very cursorily glanced at many subjects, upon which we might refer to numerous facts, if we had the opportunity, in proof of our remarks. We address them to an intelligent and industrious community, in hopes that they may excite to inquiry and reflection with others. We look upon the cause of agriculture as essentially that of humanity, public happiness, good morals, and religion. Whatever serves to increase the means of subsistence and comfort concerns humanity. Whatever contributes to make the country more beautiful and more bountiful, promotes both individual and public happiness. Whatever leads men to be industrious and frugal, essentially concerns their morals. Whatever increases our attachment to our homes, and strengthens our domestic affections by making our homes comfortable and happy, must make us more sensible to God's goodness. More than this, practical agriculture must lead a man constantly more and more to study the works of nature and to contemplate with wonder and gratitude the miracles of divine Providence, which are presented to his observation in the beautiful progress of the seasons and their appropriate and various products. "Nature is God's earliest revelation" and it is full of instruction. Our Saviour bade his disciples strengthen their faith in the protecting providence of God by looking at the birds of the air and the flowers of the field. The enlightened and reflecting farmer, in surveying the products of his labor, the various operations in which he is called to perform his part, and the brute animals, who gratefully acknowledge his care and look up to him as the almoner of the divine bounty to them, will find constant and powerful incitements to think of and to honor God, the great husbandman, whose rain enriches, whose sun warms the earth; and who in his goodness has placed man in his vineyard that he may till and dress it.

ROTATION OF CROPS.

Chester county, Penn. June 25, 1830.

J. S. Skinner, Esq.

A Virginian correspondent, whose signature is T. T. in the American Farmer, of the 18th inst. expresses a desire to learn something on the subject of *Rotation of Crops;* and as I think the practice, in this district of country, preferable to any I have witnessed elsewhere, I will take the liberty briefly to state our most approved mode of farming, in reference to the particulars inquired of. Your correspondent says his "cleared land is divided into four lots or shifts, of unequal sizes, averaging perhaps something less than thirty acres each: of course," says he, "my rotation of crops is corn, wheat, clover, and then corn again, &c." The land in Virginia must be of a superior quality indeed, if it can stand such cropping as that, without deterioration. The average size of our farms here, is about that of your correspondent's; but instead of dividing them into *four* fields, we have at least half a dozen,—and I believe that *seven or eight* would be still better. We hold it bad policy to plough one furrow more than can be *well manured;* and, moreover, that a field which is not richer at the conclusion of a course of crops, than it was at the commencement, has been injudiciously managed. The character of the soil must, of course, be considered, in determining on a system of cropping;—as a light, sandy soil, would not probably admit of the same treatment as one in which clay greatly predominated,—though I think the great art, in agriculture, consists in gradually ameliorating the native condition of soils, by such *additions* as will produce a *mellow loam.* In this region, our soil is a stiff loam, frequently with an excess of clay,—which we qualify by the use of lime, with excellent effect. We commence a course of crops, by turning down the sod of the oldest pasture field, either late in autumn, or early in spring, for Indian corn. On the field thus ploughed, we immediately spread a dressing of *lime*—about 30 or 40, and often 50 bushels to the acre—harrow it well, then plant the corn, and take good care of it, by using the *cultivator* among it, every few days, until harvest,—after which it requires no further dressing. In the latter end of September, we cut off the corn stalks near the ground, set them in upright shocks, with a band round each to sustain it, until the fodder is dry, and the grain quite hard. In October and November, as other business permits, we husk the corn, and carry both it, and the stalks, off the field—the former to the corn-cribs, and the latter to sheds, ors tacks, to be fed to the cattle, during winter. In the ensuing spring, we plough up the corn roots, and sow the field with barley, or oats, as the quality of the land may authorize. If the land is not very good, oats will do best; but as soon as the soil becomes reasonably fertile; the oats will grow too rank, and barley answers better. When the barley or oats are harvested, we cover the stubble with a heavy dressing of manure, and immediately plough it down. This is usually done in August. After some time, the ground is well harrowed; and in the beginning of October we plough again, and sow wheat, timothy, and orchard grass seeds. These are usually harrowed in; and our neatest farmers are careful to have the fields rolled, when the ground is dry enough. This leaves the surface in good condition for cutting the wheat, and mowing the future crops of grass. In the beginning of March following, the wheat field is sown with red clover seed; and after harvest there is an elegant growth of young clover and timothy (and orchard grass, if sown—which I think ought to be, in order to fill the sod with as much valuable vegetable matter as possible,) among the wheat stubble. This makes a fine pasture during the residue of the season, and the next year it is fit for the scythe. Our fields are all treated in this manner, in succession; and by having six fields, there is one in Indian corn, one in barley, one in wheat, one in grass for hay, and the remaining two for pasture, thereby allowing a shift of the feeding stock; which is considered advantageous. After wheat harvest, there is a third pasture field obtained, as above mentioned. If there were seven or eight fields, the ground would be allowed to lie for a longer term in grass; and when once made rich, several natural grasses, (such as the *poas,*) succeed the cultivated ones,—and are actually better, for feeding cattle, than those introduced by art. This is one great advantage in having a number of fields cultivated in rotation, and allowed a sufficient time to repose in pasture. A *top dressing* of lime can also be applied with advantage, where fields are allowed to remain several years in grass. I have adopted this plan on my own farm, which is a small one; and have even reduced it into *twelve* sub-divisions, or portions, for successive cultivation. This would probably be considered too minute a division, by farmers who wish to cultivate a larger portion of grain; but I have been, so far, well pleased with the operation of the plan,—and am convinced that almost every farm might be divided into *seven or eight* fields with advantage. We should soon, in that case, see better land, and larger products, with less labour and trouble.

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* Statement of William Thurlow—Essex Reports for 1828—p. 29.

If these hasty observations shall prove acceptable to your correspondent, or yourself, I shall be gratified.

W. D.

P. S. I perceive, in the same number of the American Farmer, an account of a *Native Grass,* taken from the Southern Agriculturist, which is well spoken of; but, from the want of a *description,* it is impossible to know what it is. This is a great defect, in such accounts. We often hear fine stories of supposed *new* plants,—which prove to be very common, when ascertained. Those who favor us with notices of this kind, ought to get some botanical friend to furnish them with the *name* of the plant—or, if that is unknown, at least with a *description,* so that readers may have some idea of the article announced.

(From the Winchester, Va. Republican.)

NEW THRASHING MACHINE.

We rode out to Mr. Joel Lupton's on Friday, to see Dr. Clark's newly invented thrashing machine in operation. About 30 farmers had collected, many of them gentlemen of the first practical information in the county. We only repeat their opinion when we say that the machine equalled the character they had heard of it, and that it exceeded in its performance all others they had ever seen. While we were present 120 sheaves were thrashed in 7 minutes, which was 17 a minute: 24 sheaves, it is estimated, yield a bushel of grain. We learn that on Monday a further trial was had, in which 550 sheaves, or 22½ bushels, were got out in 32 minutes, and much cleaner than the bystanders had ever before seen. This is at the rate of about 450 bushels a day. The fact may appear incredible, but it is nevertheless so. The machine is remarkably simple in its construction, about the size of a wheat fan, is worked with one or two horses, and requires the attendance of but 3 or 4 hands. The cost is about 60 dollars, exclusive of the horse power, which is about 50 more. We understand that Messrs. Joel Lupton and John Bond have purchased the patent right for this county and Shenandoah, and that they have already received several orders.

A machine of the same kind may be seen at Mr. Kerr's cabinet warehouse, in Winchester, to which a hand power is applied, and which got out on Monday last 10 bushels of wheat in 30 minutes. Messrs. D. Russell, Bushnell and Kerr, of Winchester, have purchased the right for the counties of Loudon, Fauquier, Fairfax, Prince William, Culpeper, Orange and Madison, and will in a few days be enabled to supply orders.

Philosophy can triumph over past or future evils, but present evils triumph over philosophy. Religion only can fit us to bear all with resignation.

PROSPECT OF CROPS.

Wake Forest, N. C. June 15, 1830.

J. S. Skinner, Esq.

Dear Sir,—We have now, in the most favourable weather, a clear sky, and mercury at 90, commenced harvesting the best crop of wheat ever grown in North Carolina. My own observation of the crop has extended over several counties, and information on which I rely, embraces most of the state. Some cold days in the early part of this month have rusted wheat to a limited extent, but not injuriously. In the middle and eastern parts of the state the quantity in field is without any former precedent. The favourite wheat for light thin lands, at present appears to be the golden chaff without beard—the same in appearance and adaptation to soil with the common bearded wheat, except wanting that excrescence. The preference of the farmer is, that it shells out less in handling. The white wheat is commonly preferred for rich and highly manured lands. Our corn [maize,] crop is very promising, and cotton tolerably so.

Respectfully, yours, &c. C. J.

Extract to the Editor, dated Port Gibson, Mississippi, June 2d, 1830.

J. S. Skinner, Esq.

Dear Sir,—We have had a most favourable season for the planters thus far, and the crops of corn and cotton are very promising. The weather, however, has been remarkably cool, and rains not very frequent, though sufficient. The corn is now generally beginning to tassel, and some in silk. I have never seen the cotton crops in better order, or the planters more forward.

At one time we anticipated a general overflow of the Mississippi river, but our fears are now dispelled, as it has fallen two or three feet, and we never apprehend any danger after the first June. It rose within two and half feet of what it was in 1828, when the overflow was general.

Remedy for Poisoned Animals.—Raw eggs given to sheep and cattle which have been poisoned by eating laurel or ivy leaves, it is said, will effect a speedy cure. The dose is, one egg for a sheep, four for a cow. They can be administered by simply breaking the shell and slipping the yolk and as much of the white as is practicable, down the animal's throat.

HORTICULTURE.

(From the New York Evening Post.)

THE CHINESE MULBERRY TREE.

Arrived at Havre, July, 1821, a national corvette, commanded by Capt. Philibert, from a three years' navigation on the eastern coast of Asia, down to the Philipine islands, and to the Indian Archipelago, thence to Mascareigne and Madagascar, and to Guiana. The expedition had been devised by government to obtain a collection of rare and precious plants in those regions, pods, fruits and roots, under the care and choice of Mons. Samuel Perottet, a member of the Linnæan society, altogether an eminent botanist and horticulturist. He had on board, and in the most perfect arrangement 534 growing sorts, each in their native soil, in full vegetation, and filling more than 100 boxes, besides a collection of palmists, and an immense quantity of seed, laid in preservative strata of compost. Never had France received so large an importation of exotics from distant lands, and no less than about 200 non-descripts, or imperfectly described plants.

In the higher ranks of boxes there were vigorous saplings or stalks, from 4 to 8 feet high, bearing as thrifty foliage as if they had been taken from a green house, and among these the large leaved Chinese mulberry, from the Chinese colony of the Philipine islands. To this only plant, said one of the colonists, "our country owes its immense produce of silk and the greatness of the Celestial Empire, from whence we carried it, as the best article of our national wealth."

This tree differs from others inasmuch as its growth is active in the tops and among the branches, as well as from the roots. These, which are large and bulbous, incessantly give up shoots or stems which can soon be transplanted; hence its appropriate distinctive name of *Morus Multicaulis.* The leaves are large and smooth, serrated, cordated, crisped on the surface, pale or dark green, according to their age, but extremely thin and silky. They afford to the silk caterpillar double the quantity of food compared to the ordinary white mulberry, all the characteristics of which it otherwise presents.

But there is a more remarkable advantage from this tree. The reader of the 1st vol. of Practical Instruction, page 37, 38, may remember that among many objections we have raised against attempting two or three crops of silk yearly, we have mentioned the difficulty of procuring tender or budding foliage for a second hatched brood, at a period of the warm season when vegetation is advanced. Now every body knows that either the European or American White Mulberry (the last as good as the former) are under the same natural difficulty, and have done budding by the end of June, unless they were completely stripped. The objection, however, is perfectly removed by the *Morus Multicaulis,* because its continued growth of shoots from the roots may amply furnish tender buds, and because its old leaves are, comparatively, thin, tender, and accessible to the smallest insect. A celebrated silk culturist in Paris, Mons. Loiseleur de Longchamp, has already and thereby successfully obtained a second crop.

A very premature vegetation is also the attribute of the *Morus Multicaulis;* three young stocks were taken from the ground in Paris by the middle of February last, and very carefully packed, to be sent to us, but the cold was, however, still so great that the smallest of them could not resist it: the others were found in March full of buds, even from the roots. It having been ascertained by Mons. Perottet that this tree was originally from the North of China, and yet that it was transplanted from Canton to Manilla, he further tried it in still warmer latitudes, and in coming home, he deposited it in the island of Bourbon and of Cayenne, and not long ago also in *Senegambia;* every where it has succeeded, yet with difficulty in the parched lands of Africa.

A most important attribute of the Chinese mulberry tree is the facility with which it can be propagated by cuttings, even as small as 8 or 10 inches inclusive, provided they have at least a bud or one eye at the bottom and one on the top. We have for that assertion not only the authority of our colleague, Mons. Perottet, but that also of the Annals of Horticulture, July last, page 33, in which that of propagating by *Marcottes* or *drageors* is highly recommended. All these means have indeed been used in France during the late years, which have been sufficient to propagate the same in such quantity, and at different latitudes, principally in the Royal Gardens of Paris and Montpellier, so as to furnish the silk establishments and principal culturists of the nation; after which the liberal authority presiding to this national distribution, we have been able to obtain a few stocks, which are in New York, actually in excellent condition, and shortly may give abundance of suckers, layers, shoots and cuttings, for the better keeping and gratuitous disposal of which, one of our trees will be deposited in the ensuing season with the New York Horticultural Society, and the other at the Hyde Park horticultural establishment of Dr. Hosack, the patron of the same.

Synonimy of this exotic, vide Annals of the Royal Institute of Horticulture, for Jan. 1830, p. 337.

Morus Multicaulis. Perottet, *An. Lin. Soc. Paris,* May, 1824, p. 129.

Morus tatarica, Desfont. Cat. Hort. Paris, edit. 3, page 347.

Morus bullata, (Murier a feuillas Cloquees) Balbis in litt. ad D. Loisleur.

Morus Alba, var. *Sinensis,* Bosc. in litt. ad Felix Pascalis, ex dom a Eyries.

Murier de la Chine.

Murier des Philipines.

Murier du Cap. Philibert, &c. &c.

N. B. The rapid vegetation of the Chinese mulberry tree, absorbs much more nutritive elements, and requires a more substantial and humid soil than the ordinary or native plant. FELIX PASCALIS.

New York, June 21, 1830.

[Gideon B. Smith of Baltimore, has a young Chinese mulberry tree of the kind above noticed.]

COMPOSITION FOR GRAFTING.—The following composition, we are assured has for some time been made use of by the Messrs. Winships, at their valuable nursery in Brighton, and by them preferred to any other. Three parts rosin; three parts beeswax; one part tallow. Melted and mixed while hot.

RURAL ECONOMY.

(From a Treatise on the English Race Horse.)

ON THE DISTEMPER IN HORSES.

Race-horses, like all others, are of course liable to become constitutionally amiss, and they are very often subject to a disease commonly called the distemper, with which some of them are at times severely affected, much to the annoyance both of their owners and trainers, as they are thereby thrown back in their condition, and are often prevented from running for the different plates and stakes for which they may have been entered.

It has been a rule with me whenever the disease has made its appearance among horses in the regiment in which I am serving, to remove those which have been affected from those which were in health; as I have frequently observed, from horses standing next to each other in bail stables, (the custom in his majesty's service,) that those which have been labouring under the disease have not been removed more than a day or two, before those which had stood next to them, have become affected; and in the space of a fortnight, I have had a hundred horses affected with the disease, while the remainder of the regiment has continued in a healthy state. These are circumstances which, of course, have happened to other veterinary surgeons, in similar situations, as also to grooms, (although, to these, not to the same extent,) who may have had the care of horses, and which circumstances may have led these last mentioned to suppose the disease contagious. This, perhaps, is doubtful. That a peculiar state of the atmosphere often produces the disease, I believe is not to be questioned, and that exposure to the same causes will occasionally produce the same effect, will be readily allowed. Young horses are not only more liable to become affected by the disease, but they suffer more severely from it than old horses generally do.

From the observations I have made during the time of my living in the stables, I am of opinion that horses sometimes become affected, in a slight degree, with this distemper, or something very like it, as coughs and colds, attended with fever, when they are in what is so commonly called, high condition, that is, very lusty, as some race-horses (country platers) are, early in the month of March. I am induced to think they become thus affected, from grooms not paying sufficient attention to the regularity of the temperature of the stables, as well as to the clothing of their horses, more particularly so, when in the mornings at the commencement and the close of spring, they are going out upon the open downs to exercise. At this season of the year it is that horses are most liable to be amiss from such complaints, and if not immediately attended to, such complaints become worse, and terminate in the distemper, or what is often more difficult of cure, inflammation of the lungs.

Training grooms are very watchful over their horses, and the moment they find them coughing, they have recourse to bleeding, and in slight cases of colds and fevers, they were much in the habit of giving their horses morning and evening an ounce or two of the sweet spirits of nitre in some warm gruel or beer. By the early application of the above medicine, (which in such cases is a very good one) they often put a stop to the further progress of the disease, and thereby got their horses well, so as in a short time to have them at their work again, which to the groom is an object of great importance.

But when the distemper comes on, attended with the usual symptoms, as the horse being taken with a shivering; being off his food; having a slight cough; the glands of his throat enlarged, his mouth hot, and his legs swollen: if a groom takes upon himself the treatment of a horse labouring under the above slight symptoms, he generally has recourse to the constitutional remedies already mentioned, and his local applications are poultices, or a mild embrocation to the throat, with warm clothing about the head. Nor in slight cases of the distemper are those external remedies by any means injudicious. But in his constitutional treatment of the disease, I should advise his dispensing with the use of sweet spirits of nitre, and to give, in lieu thereof, medicines which will gently relax the bowels; and when the horse appears to be in a convalescent state, he may then give the spirits of nitre, morning and evening, with considerable advantage.

The symptoms attending the distemper, will, of course, occasionally vary in different horses, depending much on the violence of the attack. Those symptoms first mentioned will most of them be present, but in a more violent degree; the respiration and pulse is much increased, the latter often from sixty to seventy; the eyes sometimes appear inflamed and watery; the parotid and maxillary glands, or in other words, the glands about the throat and under the jaws. are inflamed and enlarged; the membranes of the nostrils, throat, and wind-pipe, are also highly inflamed. The throat being very sore, the horse has great difficulty in swallowing his food and water, but more particularly the latter, if given cold; he sips and slavers in the pail, and coughs repeatedly; added to the above symptoms, great debility often ensues in the course of a few days. The horse sometimes becomes so weak, that in moving in his stall or box, he is near falling. I have known some horses so well aware of their debilitated state, as to place their quarters against the wall of the box, in order to support themselves while standing.

When a horse first becomes affected with this disease, if, at the time, he is standing in the stable with other horses, he should immediately be removed to a well-ventilated loose box. A good bed should be given to him, and he should be comfortably clothed. The next step to be taken is bleeding; but, as the disease is so often followed by debility, neither bleeding nor purging should be carried to too great an extent. The quantity of blood taken should be regulated according to the age, size, constitution, and condition of the horse, together with the appearance of the symptoms under which he labours. When a horse in good condition, or perhaps lusty, is labouring under the effects of the distemper, provided he be immediately attended to, no great debility will have taken place. In which case, the horse may be bled with safety to the extent of five pints or three quarts, only observing to attend to his age, constitution, &c. The next thing is to get the horse's bowels gently relaxed, but brisk purging must be avoided. If the horse should be a flighty, delicate one, the better way of relaxing his bowels, is by giving him a pint of castor oil; but, if he should be such a horse as, in training, is termed "a hearty one," the more effectual way of relaxing his bowels, is by adding aloes to his oil, in the following proportions:—

Barbadoes aloes - 2 drachms,
Castor oil - - - - 6 ounces;

Dissolve the aloes in four ounces of warm water, then add the oil. There is a third description of horse, which, in training, is called "a craving one." It is, at times, rather difficult gently to relax the bowels of a horse of this description. In order, however, to reduce it to as near a certainty as possible, it is adviseable to make a further addition to the aloes and oil; to the former, one drachm; and two ounces, to the latter. The above medicines, given in their different proportions, according to the delicacy or strength of the horse's constitution, will have the desired effect—that of relaxing or of very gently purging him. If a groom observes that a horse, on his being first taken ill, is costive in his bowels, he should rub some oil or lard over his hand and arm, and, compressing the former, he should gently introduce it up the fundament, and remôve any hard excrement with which his hand may come in contact; after which, he should administer a clyster of milk-warm thin gruel, for the giving of which, an ox's bladder with a wooden pipe (well oiled) attached to it, is, I think, preferable to the pewter syringes used for this purpose.

With regard to diet, a horse in this, as in most other constitutional diseases, feeds but sparingly; yet hot bran mashes should often in the course of the day be put into his manger, and his head should be held over them, with a view to promote as early as possible, a healthy discharge from the nostrils, which, when it takes place, gives great relief. His hay should be wetted, but not put in the rack; he should eat it off the ground, but if his throat be very sore, it may be put in the manger. Green meat, fresh cut, is to be preferred, if it can be had; his drink should be warm gruel, given to him often during the day, the bucket being held up for him to take it; or, perhaps it would be better to secure the bucket in the stall at a convenient height from the ground, so that the horse may take it as often as he likes.

The progress of recovery, after the operation of the medicine ordered, will depend on the constitution of the horse and the nature of the attack. In slight cases, some horses shake off the effects of the disease in seven or eight days, while others remain labouring under the debilitated effects of it, for two or three weeks. Under these last mentioned circumstances, as the soreness of the throat and cough become much better, and the pulse approaches to the natural standard of health, the groom may with great advantage have recourse to his favorite medicine, the sweet spirits of nitre; an ounce of which, in beer or in moderately thick gruel, may be given to a horse three times a day. The horse now appears more lively in his countenance, and may be most likely inclined to feed. If he is much debilitated, his strength should be recruited by giving him plenty of gruel, and any thing by way of change that he is disposed to eat, should be provided for him,—as malt mashes, scalded oats, good sweet clover or other hay, or green meat.

If it be a light, delicate horse, and have been but slightly attacked with the distemper early in the spring, the groom may have some hopes of bringing him out in time to run according to his engagements. But if the horse be a craving one, and have suffered long from a severe attack of the disease, great good will not be done with him much before the autumn. When a horse has recovered from the disease, the manner of his feeding, together with his general appearance as to freshness, are the criterions by which the groom must be guided in gradually bringing the horse again into work, so as to have him in his usual or proper form.

I have here laid down such a course of treatment as I would advise a training groom to follow in the case of a horse affected with the distemper, and to an extent which I think is as far as a man of his experience can safely be trusted. If a groom finds in the course of his treatment, that unfavourable symptoms are approaching, as that of a horse's respiration becoming increased, his ears and extremities being cold, and his pulse much quickened (which latter, by the by, a groom should endeavour to make himself acquainted with,) it is the lungs, in all probability, which are becoming affected. Under such unfavourable appearances, a groom should lose no time in calling in the aid of an experienced veterinary surgeon.

LADIES' DEPARTMENT.

INTERESTING PICTURE.

A young merchant, Morton, was united a few years since to a most amiable girl, whom he sincerely loved, and who returned his affections with all the warmth and ardour his many virtues deserved. At the time of their nuptials, Mr. Morton's business was lucrative, and apparently increasing, so that he could indulge in reasonable anticipation, not only of eventual independence, but of attaining that desirable end, without denying himself and family the fashionable gratifications of the day. Accordingly, he furnished his house in a style of considerable elegance, kept several servants, and in other respects conducted his family arrangements on a liberal scale, and which his forefathers would perhaps have deemed idly extravagant. His wife, too, thinking to do credit to her husband, paid little attention to economy, and rather made it her study to gratify his taste, than to regard the expense it might occasion.

There was a time when such a general prosperity pervaded this country that prudence herself seemed to justify extravagance. But those times had gone by, and on those countenances where once sat hope and confidence, now sat disappointment and despair. No longer could the merchant engage in schemes of enterprise: for he saw the more extensively he was in business, the more extensive were his losses. No longer could he place reliance on the stability of his neighbour; for experience was daily teaching, in painful lessons, that the foundations of credit were loosened, and those who had withstood many a storm now bent and yielded to the calamities of the times.

But still the storm howled only without the dwelling of domestic peace—it had not yet wounded the merchant in his tenderest concerns. Soon, however, Mrs. M. saw the gloom that misfortune was gathering on her husband's brow, and which neither her own affectionate solicitude, nor his children's sportive playfulness; could chase away.

Day after day passed, and she sighed in silence. At length she extorted from him the cause of his dejection, and learned that his business had declined, and that he had sustained multiplied losses, which had deprived him nearly of all his earnings. There are women, and those whom the world call women of sense too, who could have contented themselves with sympathising with their husband, and supposing that by affectionately sharing his regrets they had discharged their duty. Not such a woman was Mrs. Morton. She felt deep for her husband's misfortunes, and that feeling prompted her to do what was in her power to assist him. She immediately commenced a rigid system of reform, retained only one servant, her table was not, as before, loaded with luxuries, and the wine was banished from her sideboard. Her two children were neatly but simply dressed, and she gazed upon them with more heartfelt delight, than when covered with ribbons and useless finery. She applied herself to domestic avocations with unabated diligence, and carried economy into every department of her household.

All this was not done, however, without the opposition, and in some instances the sneers, of her acquaintances: but happily the suggestions of pride and indolence fell harmless on the ears of Mrs. Morton, for she weighed them against her duty to her husband, and her affection to her children, and the scales mounted in the air. Her husband, in the meantime, though he would have perished rather than have prescribed such conduct, saw her thus employed with a new delight springing in his heart, and in his approbation she found at once a reward for past exertion, and an additional excitement to new. From the much decreased expenses of his family he was encouraged to struggle against misfortune, and business soon began slowly to revive; and though he cannot, as before, anticipate speedy wealth, yet from the prudent care of his wife, and his own industry and application, brighter prospects are daily opening to his view. To his partner he is now attached by a new, tender tie of affection; for he has seen that she can share and alleviate the distress of adversity, as well as adorn and dignify the prosperous station. Happy Morton, who has such a wife: and thrice happy and lovely the woman who can thus act! From her example may every American fair learn in what course of conduct lies the true dignity of female character. May they learn that they were intended by Providence not merely to float on the surface of pleasure, as fluttering butterflies in the sun, but to be sweet soothers and consolers of man, when misfortune clouds his prospects, and presses heavily upon his spirits. [*Poulson's Daily Adv.*

MISCELLANEOUS.

THE SHOSHONEE INDIANS.

Extract from a forthcoming work, entitled "Shoshonee Valley," by the editor of the Western Monthly Review.

"The Shoshonee are a numerous and powerful tribe of Indians, who dwell in a long and narrow vale of unparalleled wildness and beauty of scenery, between the two most western ridges of the Rocky Mountains, on the south side of the Oregon, or as the inhabitants of the United States choose to call it, the Colombia. They are a tall, finely formed, and comparatively fair haired race, more mild in manners, more polished and advanced in civilization, and more conversant with the arts of municipal life, than the contiguous northern tribes. Vague accounts of them by wandering savages, hunters, and *coreurs du bois,* have been the sources, most probably, whence have been formed the western fables, touching the existence of a nation in this region, descended from the Welsh. In fact, many of the females, unexposed by their condition to the sun and the inclemencies of the season, are almost as fair as the whites. The contributions which the nation have often levied from their neighbours the Spaniards, have introduced money and fictitious wants, and a consequent impulse to build after the fashions, to dress in the cloths, and to live after the modes of civilized people, among them. From them they have obtained either by barter or war, cattle, horses, mules. and all other domestic animals in abundance. Maize, squashes, melons and beans they supposed they had received as direct gifts from the Wahcondah, or Master of Life. The cultivation of these, and their various exotic exuberant vegetables, they had acquired from surveying the modes of Spanish industry and subsistence. Other approximations to civilization they had unconsciously adopted from numerous Spanish captives, residing amongst them, in a relation peculiar to the red people, and intermediate between citizenship and slavery. But the creole Spanish, from whom they had these incipient germs of civilized life, were themselves a simple and pastoral people, a century behind the Anglo Americans in modern advancement. The Shoshonee were, therefore, in a most interesting stage of existence, just emerging from their own comparative advancements to a new condition modelled to the fashion of their Spanish neighbours"

"Their common hunting grounds are on the wide grass plains, stretching from their native mountains to the western sea. Elk, antelopes, mountain sheep, deer and water fowls are their most abundant game on their own side of the mountains. Along their smaller streams and mountain torrents, they trap the beaver, otter and muskrat. Ermine, sables, and four species of foxes constituted the chief material of their peltries. They had often descended the Oregon to pursue seals and the other hairy dwellers in the depths of the sea. The traces of their footsteps and their temporary huts were frequently seen amidst the dark hemlock forests on the Pacific shore. These free rangers of the deserts, as they saw the immense fronts, range behind range, of the ocean surf rolling onward, to whiten, and burst on the sand at their feet, had their own wild conceptions of the illimitable grandeur, and the mysterious and resistless power of the ever heaving element. They nerved their Herculean frames by bathing in the pure waters.

"Variety and change are indispensables in the sum of their wants. To diversify their range and their monotonous thoughts, they set their faces towards the rising sun, and marched gaily along the grass plains, to scale the cold summits and breast the keen air of the mountains interposing between them and the hundred branches of the long Missouri, along whose valleys they purposed to course the buffalo. Hence their wide range of survey, the variegated modes of their existence, their different objects of pursuit, their alternative converse with the ocean, river, valley and mountain, and the various mental tension necessary to diversify their meditations, according to their range and object, gave them the intellectual superiority, in comparison with the more stationary Indians, of travellers capable of a certain amount of reasoning, comparison and abstraction."

An Act to reduce the duty on Molasses, and to allow a drawback on spirits distilled from foreign materials.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the thirtieth day of September, 1830, the duty on molasses shall be five cents for each gallon, and no more; and from and after that time there shall be allowed a drawback of four cents upon every gallon of spirits distilled in the United States, or the territories thereof, from foreign molasses, on the exportation thereof to any foreign port or place other than the dominions of any foreign state immediately adjoining the United States, in the same manner and on the same conditions as before the tariff of May nineteeth, one thousand eight hundred and twenty-eight.

Approved, May 29, 1830.

An act to reduce the duty on Salt.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the duty on salt be fifteen cents per bushel of fifty-six pounds, from the 31st of December next, until the 31st of December, one thousand eight hundred and thirty-one; and, after that time ten cents per bushel and no more.

Approved, May 29, 1830.

In a communication to the Academy of Padua, Dr. Nardo has imparted some singular observations in reference to the growth of the hair after death, nay, even after it has been forcibly plucked from the skin. Having torn up a hair by the roots from his own head he inserted it in a pore he had opened with a needle in his breast, excited a trifling inflammation around it by rubbing, and in a short time remarked that the hair had taken fresh root, and continued to thrive and grow perceptibly.

THE FARMER.

Baltimore, Friday, July 2, 1830.

☞ The Editor of the American Farmer solicits the attention of persons acquainted with the subject, to the following extract relative to mills. In many parts of the southern states, water mills in summer are not to be found. Indeed we have heard of persons going fifty miles to get a couple of bushels of corn ground. A remedy for this evil, either in the shape of steam or horse mills, would be of infinite importance to the farmers there.

From a Correspondent in Sampson County, N. C.

Our corn crops look well notwithstanding a long drought has much retarded their growth.

Many parts of our country suffer severely from the want of good mills, and few more than this. At this time we can scarcely get a bushel of hominy at any of our mills! What is our most economical remedy? If we have any choice, it is said to be steam, but few have any theoretical, and still fewer any practical knowledge of it. Will any of your friends who possess both, or either, furnish your valuable paper with some articles on the economy and advantages of small saw and grist mills, to be driven by steam, in neighbourhoods, whose drying mill-ponds of two to six hundred acres engender disease by their noxious exhalations. Few essays will be read with more avidity, and few can confer more lasting benefits on many portions of the country. In hopes of seeing something on this important subject.

I am with much respect, yours, E.

Fortress Munroe, June 21st, 1830.

J. S. Skinner, Esq.

Dear Sir,—I observe that you have been lately presented with an onion from Chili, by Mr. J. P. Donaldson, and presume that it is thought a remarkable production of that fertile country from the notice which has been taken of it.

I have a farm in this neighbourhood, where I grow large quantities of this valuable vegetable, which grows to great perfection, the climate and soil being peculiarly adapted to its growth; a sample of which I send you, not for the purpose of boasting, but to shew that with proper cultivation our country is capable of producing many of the exotics in as great perfection as they attain in their native climate.

This onion has now been 12 days out of the ground, when first taken up it weighed 1 lb. 6 oz., and measured 16¼ inches in circumference, and I have no doubt that many more can be found of equal, if not superior size.

Fruits and vegetables of all kinds that are adapted to this climate come to great perfection, I had strawberries this season which measured 5¼ inches in circumference, *not* as large as Chili is said to produce, but sufficiently so to shew that the climate and soil is peculiarly adapted to the cultivation of this delicious fruit

I shall have a large supply of onion seed of the kind which I send you, and will thank you to inform your friends where they can be had.

Very respectfully, yours, &c.
Will Armistead.

[The onion accompanying the above, appears to be of the large white Madeira kind.]

☞ Fine Gooseberries.—We are indebted to our much respected fellow citizen, Isaac McKim, Esq. for a dozen of his very superior gooseberries—remarkable both for size and flavour—measuring from three to four inches in circumference. Mr. McKim appears to meet with no difficuly in producing this excellent fruit, as he has had them in abundance for many years in succession. The question then naturally occurs—why may not others do the same, and why are not our markets abundantly supplied with the superior, instead of the very inferior fruit that generally occupies the stalls? We believe the answer to be literally this—careless indifference to the future, and an habitual dependence on old things and old customs for a very indifferent supply for the present. "The new gooseberry bushes will not bear fruit for a year or two, the old ones will, *such as it is;* I will set out some of the new ones next year." Now "next year," like to-morrow, and to-morrow, and to-morrow," never comes; and hence the gooseberry bushes are never set out,—and hence we never have the improved fruit. With gardeners and farmers, as with every body else, the thing to be done next year, is never done; and it occurs to us that the reader, by substituting the name of any other fruit or thing for gooseberries, in these remarks, may make them applicable to any other thing or pursuit in human life.

Contents of the 10th, or June Number of the Sporting Magazine.

Portrait of Sir Charles, *by Cone*—Memoir of Sir Charles—Instructions for training Horses by an old sportsman of Virginia—Mangel Wurzel, food for hounds—Introduction of bred horses to Kentucky; Albert got by Americus, not by Melzar; Notice of Melzar; Value of old brood mares; measurement of English Eclipse—Othello and Selima, notice of—Large white Swan, size and weight of—Portraiture of the Godolphin Arabian—Remarkable races of the olden time: Grey Diomed, Cincinnattus, Leviathan, Little Medley—Trotting matches in Virginia recommended—Archery, manner of counting hits explained—Racing Memoranda—Spurious Pedigrees, instances and reprobation of—Big-head and strangles in horses, remarks on—Instances of extraordinary shooting—Greyhound, Blucher, property of Lieut. H. A. Thompson, description of—Fishing and shooting at Cape Cod—Great Pigeon shooting, Maryland beaten in New York—Season for shooting game, remarks on—Shooting near Baltimore—Mange and distemper in dogs, cure for—Beaver, Natural History of—Fishing near Baltimore—Captain Barclay's performances—Highflyer, mistake in regard to, corrected—Bold leaping—Sporting Intelligence.—Revival of the Jockey club in Baltimore; Races at Washington; At New Market, Virginia; Norfolk; Long Island; Poughkeepsie—Trotting Match on Long Island—Turf Register.—Pedigrees.

In the year 1821, France exported 1,500,000 leeches: in 1826 the number was increased to the prodigious amount of 33,650,000!

Latest Foreign News.

By the Mary Howland at New York, advices from England are received to the 20th May. The King's health, the first and last concern of the British people and press, was said to be better.

In the House of Commons on the evening of the 16th, Lord Stanley presented a petition from the Manchester Chamber of Commerce, praying the house to take steps to prevent the invasion of Mexico by Spain.

On a motion for the second reading of the Jew's Emancipation Bill, it was lost, ayes 165, noes 228.

A dreadful accident happened in Sunderland Roads on Sunday the 16th ult. in the evening; the Durham packet, lying ready for sea, broke from her moorings in consequence of a fresh running down the harbor, and was hurried furiously against the next tier of ships, which were also driven from their moorings, and all on the south side of the Wear were soon drifting to sea. They stopped in a slip, forming a dam across the river—one of them being forced out by the flood, the whole drifted to the entrance of the harbor and grounded. The damage done was immense.

There will be no alteration of the duties on sugar this year.

Liverpool, May 20.—Last night we received Paris papers to Saturday. The first division of the expedition was to embark on the 11th, the artillery on the 12th, the second division on the 13th, the third on the 14th, and the whole with the exception of the cavalry and one or two regiments of infantry, would probably sail on the 16th.

Toulon, May 5.—From the 20th to the 25th of May, 50,000 Frenchmen (35,000 belonging to the land forces, and 15,000 to the navy) will be landed on the shores of Africa. The English Parliament has abolished the negro slave trade. Thanks be to the King of France, the slavery of the whites will soon cease also. Before the Revolution, the corsairs of Algiers, Tripoli, Tunis, and Morroco, were kept in check by the Maltese Knights. The first crusade was raised in France; and in France also the standard ought for the last time to be raised, without, however, violating the character of the age, and without employing those means which are no longer congenial to our manners. Petty commercial interests can no longer contract the grand interests of humanity. It is high time for civilized nations to free themselves from the disgraceful tribute which they paid to a handful of barbarians. It is high time to put an end to the slavery of Christians.

Tobacco Trade.—The projected plan of allowing this vegetable to be cultivated in the United Kingdom, under a duty, does not appear palatable to either merchant or manufacturer, as they assert their interests as well as that of the revenue would materially suffer. In Ireland, by an inequality of the law, the article has been planted for several years, and progressively increasing until it has reached an enormous quantity, and this going into consumption without the payment of any duty,—a large proportion of the price obtained by the grower is so much abstracted from the revenue—and to the prejudice of the fair trader. It seems that Mr. Goulburn is delaying the production of his bill, no doubt to afford the interested parties an opportunity of tendering their objections; and this town, we understand, is about availing itself of it, by sending a deputation to London on the question.

Liverpool Corn Exchange, May 1830

Our imports of British Wheat since Tuesday have again been considerable, but of other descriptions of grain the supplies have been small. Several parcels of foreign wheat have arrived coastwise, and, including the direct imports, amount to 22,000 quarters. There are also upwards of 22,000 barrels of flour from the United States. A great proportion of the foreign is from the lower ports of the Baltic, and consists mostly of red wheats, of fair qualities; there are also two cargoes from the North of Spain. An increased local demand for Flour has caused our millers to purchase Wheat with more confidence than for some time past: the interior millers and dealers have also been buyers to a considerable extent; still the demand which has been principally confined to Foreign Wheat, was freely met by the importers, who have, in some instances, submitted to a small reduction on our previous quotations. Irish wheats, of which the finer qualities are scarce, have, however, been held for full rates. There was an evident improvement, at the close of the week, in the sales for Manchester and its neighbourhood, our prices being now fully as low as those of the Yorkshire markets. Speculative purchases have been daily made in oats, and the market is much thinned of fine qualities; but the sales to the trade have been rather more limited than usual. So little has been passing in barley that our prices may be considered almost nominal. Beans, peas, and Indian corn have each supported our previous currency. The only sales reported under lock, are one or two cargoes of oats, at 2s 2d to 2s 3d per 45 lbs.; there have been numerous inquiries for this article.

Liverpool Cotton Market, May 17.

The demand for cotton has been steady, the sales amounting to 15,750 bags, at about the currency of last week. The transactions comprise 90 Sea Island at 12¾ to 21d, with 20 stained at 8d to 8½; 4,850 Bowed, 6 7-8d to 7 3-8d, with 14 at 7½d; 1,880 Orleans, at 6¼d to 8d; 2,220 Alabama and Mobile, 6¼d to 7¼d; 1,530 Pernambuco, 7¾d to 8½d; 1,370 Maranham, 7 3-8d to 8d; 620 Bahia, 7½d to 7¾; 20 Demarara, 7½d to 8d; 20 Barbadoes, 7d; 30 West India, 7d; 1620 Egytian, 8¼d to 9½d, and 1480 Surat at 4 3-8d to 6d per lb. There was a fair demand on Saturday, and upwards of 2500 bags were sold at the prices of the early part of the week; but on Monday the sales amounted to only 500 or 600 bags.

London Corn Exchange, May 17.

Last week there was a very great supply of foreign wheat, but of English grain and flour the arrivals were only moderate. There is little corn fresh up to this morning's market. The weather is now considered particularly favurable for the young crops, having become warm and fine. Rather more money was made on a few select parcels uf wheat, but other descriptions have sold on the same terms as this day week. Fine foreign red wheat, has met a country demand at 62s to 66s per quarter. For Barley there is not so free a sale as last Monday; but the trade is not reported any luwer! Beans have advanced a little in price, but peas are unaltered. There has been a good demand for oats to-day, and this article is full 1s per qr. higher than on this day se'nnight. There has been rather more demand for fresh made flour during the past week, but all other qualities continue to meet very few purchasers.

Extract of a letter dated Havre, 16th May, received via Philadelphia.

You will see that our cotton market continues inactive; some sales have been made during the last ten days, a shade below former rates. Our principal owners, however, are very firm, and we hope the market will, ere long, recuver its accustomed activity.

Since the annexed was printed, the Nereus with 657 bales, and the Guld Hunter with 483 bales cotton, have come in from New-Orleans.

Sales at Havre 10th May, 1830.

Cotton.—50 bales Louisiana, 9½c.; 21 do. do. 1f. 4½c.; 18 do. do. 89: 18 do. do. 93; 265 Pernambuco. 1 15½; 135 Hayti, 98½.

May 11*th*—Cotton.—245 bales Georgia, 92½c.; 28 do. Terceira, 82; 150 do. Bahia, 95½; 60 do. Pernambuco; 1f. 14½c.; 13 do. Sea Island, 2 17½.

Prices Current in Boston, June 25.

Apples, best, bbl. .400 a 5.00 *Beans*, white, bushel. .87 a 1.12. *Beef*, mess, bbl. 9.00 a 9.25; cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.37 a 5.50; Genesee, 5.25 a 5.87; Rye, best, 3.50 a 3.87. *Grain*, Corn, bu. .46 a 55; Rye, .65 a .67; Barley .67; Oats .37 a 42. *Hogs'-Lard*, 1st sort, new, lb. 9. a .10.00. *Pork*, clear, bbl, 16 a 17; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, —— Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .40 a .50; do. do unwashed, .25 a .35; do. three-fourths, washed, .35 *a* .40, do. half blood, .33 *a* .35; do. quarter, washed, .33 *a* .—; Native, washed .25 a .38; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, June 26.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9½ a .11½; Alabama, 9½ a .12. *Cotton Bagging*, Hemp, yd. .18 a .21; Flax .12 a .18. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a ——; Canal 5.12½ a 5.37½; Balt. Howard st. 5.12½ a ——; Richmond city mills, —— country, 4.87½ a 5.00 Alexand'a, 4.87½ a 5. Fredericksburg 4.75 a —— Petersburg. 4.75 a 4.87½; Rye Flour, 3.37½ a 3.25; Indian Meal, per bbl. 2.50 a 2.62½ per hd 12.25 a ——. *Grain*, Wheat, North, 1.08 a 1.10; Vir — a 90; Rye, North, 65 a 66; Corn, Yel. Nor. .53 a 54; Barley, — a — Oats, South and North, .32 a .38; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8 00. *Provisions*, Beef, mess 9.50 a 9.75; prime 5.87½ a 6.25; cargo 4.50 a —— Butter, N. York, 12½ a 15; shipping, .6 a 11; Lard, .8 a .8¼; Pork, mess 13.25 a 14.00; prime 9.75 a 10.00.

Prices Current in Philadelphia, June 29.

Bees-wax, yellow .21 a .22; *Beans*, bushel $.75 a .80; *Beef*, mess 10.00 a —— prime 8 a 9, cargo 7; *Butter*, No. 1, 6 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 4.50, fine, 4.12½ a —— Rye 3.25 a —— Corn meal, hds. 11.00 a ——, bls. —— a 2.25; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat 95 a .98 Rye 48 a 52, Corn l. c. white, .33 a .40, l. c. yellow, 41 a .43, u. c. round, 44 a 45; Oats .28 a .35; Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia 9 a 9½, Western .9 a .9½; *Hemp*, 210 a 220; *Lard*, .- a .7; *Oil*, linseed, 72 a —; *Pork*, mess, 13.50 a ——, prime 11.50 a —; cargo 11. *Rice*, 2.25 a 2.50; *Tobacco*, Kentucky .4 a .7, Vir. .4 a .5½. *Wool*, common washed lb. .25 a .30, half blood .37 a 40, three quarters blood .40 a 45, full blood 47 a .50; unwashed, generally 6 cents .less, according to quality. &c. &c.

Prices Current in Charleston, June 21.

Cotton, Sea-Island, .22 a 28. Stained .12 a 16. Santee, .23 a 25. Main, .23 a 25. Upland, inferior and common .9 a .10 fair to good, .10 a 10½, prime to choice, .10¾ a .11½. *Rice*, prime, $2¼ a .2½. Inferior to good, do. $1.87½ a .2.25 *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5 a .5.50. *Corn*, North Carolina, .47 a .48; Maryland, .47 a .50. *Oats*, .38 a .40; Peas, 65 sales. *Hay*, prime Northern, .87½ a $1. *Whiskey*, Philadelphia and Baltimore, hhds .24½ a 25; bbls. 25½ a 28; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured 9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork*, Mess. .13½ a 14; Prime, .— a .11, scarce. *Bacon*, .7¾ a .— cents; Hams, .— a 10; Lard, 8 a 8¼. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

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ALMANAC.

1830. July.		Sun. Rises.	Sun. Sets.	Length of days.	Moon. sets.
		H. M.	H. M.	H. M.	H. M.
Saturday,....	3	4 36	7 24	14 48	3 00
Sunday,......	4	4 37	7 23	14 46	3 40
Monday,.....	5	4 37	7 23	14 46	4 25
Tuesday,....	6	4 38	7 22	14 44	rises.
Wednesday,	7	4 38	7 22	14 44	8 10
Thursday,...	8	4 38	7 22	14 44	8 55
Friday,.......	9	4 39	7 21	14 42	9 36

Full Moon—5th, 11h. 44m. Even.

BALTIMORE PRICES CURRENT.

Baltimore Markets —Sales of new wheat are made at our quotations, and 2,700 barrels of extra flour from new and old wheat were sold this week at $5. Beef is very dull, and none but extra fine quality will command our highest rate, and then to a limited extent.

Tobacco.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crup, common, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 18.00.—Fine yellow, 20.00 a 25.00.—Virginia, 4.00 a 8.00.—Rappahannock, 3.50 a 4.00.——Kentucky, 4.50 a 7.00. Cuba 18 a 20 —St. Domingo, 8.00 a 15.00. The inspections of the week are 410 hhds Maryland and 36 hhds. Ohio; and 4 hhds. Kentucky—total 450.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard-street 4 87½——city mills, 4.62½——Susquehanna, ——; Corn Meal, bbl. 2.25——Grain; best red wheat, new 95; best white do. new 1.02 *a* 1.05; Maryland red 80 *a* 87½—Corn, white, .45 *a* .46—; yellow .45 *a* .46——Rye, .50 *a*———Oats, .30 *a* .31—— Beans, .90 *a* 1.00-Peas, .40 *a*. 50-Clover seed, 3.75 *a* 4. —Timothy, 2.50—Orchard Grass, 1.75 *a* 2—Herd's, —— *a* ——Lucerne .37½ lb.—Barley, — *a* ——Flaxseed, 1.00 *a* ———Cotton, Vir. .9½ *a* .10½ Lou. .11 *a* .12 —Alab. 9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10——Whiskey, hhds. 1st p. .21½ *a* –; in bbls. 23 *a* 23½—Wool, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20–crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.–Hemp Russia, ton, $210 *a* 212; Country, dew-rotted, 120 *a* 125–water-rotted, 145 *a* 150—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. .4 00 *a* .4.25 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.50 *a* ——Bacon, hams, Balt. cured, .9½ *a* .10——Feathers, .32 *a* 33—Plaster Paris, cargo price per ton, 3.81 *a* 3.87 ground, 1.25 bbl.– Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.50 *a* 5 00—Pine Wood, by the vessel load, 1.87½. Oak, 2.75 *a* 3.—Hickory, $4.00.

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AGRICULTURE.

(From the British Farmer's Magazine, for May, 1830.)

ON BULLOCK HUSBANDRY.

Sir,—As bullock husbandry engrosses at this time a great portion of the farmer's and grazier's solicitude, the following brief narration may not, perhaps, be uninteresting to some of your numerous readers.

In the year 1791, which was the commencement of my acquaintance with the subject, improved bullock breeding was, comparatively, in its infancy, and merely the offspring of a few local crosses with different farmers' stock of the same breed, Mr. Bakewell's improved long-horns, and an improved Lancashire breed of beasts, that Mr. Bakewell was considered to have rivalled, being the only improved breeds of that description of stock then spoken of, though previously to that date there were frequent exhibitions of both fat and lean beasts for sweepstakes, subscribed by neighbouring farmers; and many enterprising sheep and bullock breeders, in several parts of the kingdom, had begun to contemplate the improvement of their flocks and herds; but were all surpassed by the celebrated breeder above mentioned, who, it was said, secured health to his stock by a vigilant watchfulness of its constitutional qualities and symmetry, by a sound knowledge of and careful attention to the points of the animals he bred from, or even purchased to fatten, without going to an enormous expense in the selection and purchase of his breeders of either sex, though his improved long-horns, or Staffordshire breed, was all in vogue till supplanted by the improved Herefordshire and short-horn breeds, with which they, for a long time, maintained a stubborn contest; nor, though surpassed in weight and stateliness, will their old friends *yet* allow them to be excelled in hardiness, feats of labour, soundness of constitution, compactness of symmetry, or primeness of quality, by their high-bred rivals. Since, however, the establishment of the cattle shows of the Smithfield Club, as well as the cattle shows of other of our agricultural societies, the short-horn and Herefordshire breeds have undergone wonderful improvement, though this, from the pampering manner in which it has been produced, is pretty generally supposed—by "taking the work of nature out of her hands," as is signified by the Rev. Mr. Berry's letter in your last number—to have been productive of too delicate a constitution in the improved breeds to enable their offspring to "bear the peltings of the pitiless storm;" or even, should the weather be favourable, subsist through the year upon common bullock fodder; whence, notwithstanding their fine appearance, those who farm with a view of being remunerated for their capital and labour, would find smaller and more hardy breeds of beasts better suited to their purpose; though all must confess that both the improved Herefordshire and short-horned breeds do honour to the science of England and the productive faculties of her soil; but on tender land a great bullock has five mouths.

Next in bulk and quite equal in fineness of quality to the short-horn and Herefordshire breeds, is the Sussex breed of beasts, the hair of which is, for the most part, either a deep or pale red. The Sussex ox is a slow but steady and powerful worker, and also a slow fattener, he taking, especially when more than seven years old, if in tolerably fair condition when turned into his pasturage, full a year to make himself fat; whence, if kept upon hay from the conclusion of wheat-sowing till the coming of the grass in May, and taken into the close or stall in November, he is seldom fit for the butcher until after Christmas; but yoke him to any fixed substance, and he will stand as many dead pulls and draw nearly or quite as great a weight as almost any horse that bears any degree of comparison to him as to size. He will too, give him his time, travel the road with a loaded carriage behind him thirty miles a day, on alternate days, thrice a week, as well as being good when yoked to the plough, &c. His weight, when moderately fattened, varies from 130 to 160 stones of 8 lbs.; when fattened for prize show, 190 to nearly or quite 240; one having been slaughtered by Mr. Alexander, a butcher of Bromley, Kent, about the middle of last December, for Christmas consumption, that weighed 232 stones of 8 lbs. Hence his general weight may be considered not greatly beneath that of the short-horns, or the Herefordshire ox, though some of the improved breeds of these, when highly fattened, are represented to have reached the enormous weight of 300 stones each. The Sussex ox is, too, remarkably quiet and domesticated, to which qualities, as well as his being a good worker, may be mainly attributed his being kept by some farmers to so great an age—say, in many instances, to that of ten years—before turned into his fattening pasture.

The best Sussex breeds of beasts that have been extant for the last thirty years, have been those of the Messrs. Ellman (father and son;) T. Luxby; W. Harrison; (brothers;) John Rutland; Upperton; Newland; Peachy; Duke, of Leominster; Farncombe, of Bishopstone; Todd; Fuller, of Mays; Stace, of Berwick; and Hurst, of Eastbourne; the whole of which were, I believe, brought to their improved state without having been crossed by any other breed whatever, merely by their owners taking care to preserve for their own use the best that are bred on their farm. The only cross in bullock breeding that I recollect to have taken place in a Sussex herd, during twenty-three years residence in that county, was by the late Mr. John Martin, of Tirle, with a remarkably fine black South Wales two-year-old bull, which produced a jet-black offspring of exceedingly fine symmetry, and quite as heavy as his original red breed; the male part of which worked well, but took a great deal of breaking, and when in their pasturage were wild as hares. He, however, continued this new breed, by which he himself considered that he lost nothing in weight or symmetry for some years.

The greatest defect in Sussex oxen is, they, like those of the short-horn and Herefordshire breeds, carry, when fattened, too great a proportion of their weight on their coarser parts; whilst with Sussex heifers and cows the case is very different, the hind-quarters of these weighing, generally, quite as much as their fore-quarters, and they carrying a good proportion of their weight along their back. The Sussex cow is a tolerably certain breeder, good at the pail, and, on the whole, handsome. She generally divides the symmetry, colour, and other attributes of her offspring, between those of the bull that begets it and those of herself. When commonly fat, her slaughtered weight, if she be not more than seven or eight years old, is from 80 to 100, when highly fattened for prize show 120 to 160 stones of 8 lbs. She yields a great quantity of loose interior fat, and fattens by far more freely than the Sussex ox. If turned off by the middle of May into a good pasturage, she is most commonly well fattened by November.

As regards what the butchers term the fifth quarter, or offals, of the before-mentioned breeds of beasts, when slaughtered, there is but exceedingly little difference in their value, the Sussex breed yielding the thinner, consequently lighter hide, but the greater quantity of loose fat than the short-horn and Herefordshire breeds; whilst in what is termed the small offals, such as the tongue, head, heart, tripe, liver, &c. there is little, if any, difference in the value of those of either breed. The average weight of the hide of a Herefordshire or short-horned ox, of 120 stones, is about 14 stones; of a Sussex bullock of the same weight, 12 stones of 8 lbs.; of the fat of the two former 12½, the latter 14½ stones of 8 lbs.

Notwithstanding, however, the high blood of the improved Herefordshire and short-horn breeds, and the bulk, power in the yoke, temper, and other valuable properties of the Sussex breed, each of these is fully equalled, if not surpassed, by several far less bulky tribes of their species. The little red Devonshire ox is not only a kindly fattener, but a nimble and free worker in the yoke, either on the road or in the field, he even keeping up to his work and outwalking while at it a sluggish cart-horse, and is so healthy and hardy as, in the absence of better fare, to almost fatten in a straw yard. He is too as good a tempered animal, and though unable to move so great a weight, will stand as many dead pulls as will the Sussex ox, while he does not take more than half the time taken by the latter in fattening. He also comes more willingly and at an earlier age to the yoke than does the steer of any other breed; and from the convenience of his size and fineness of his nature is always selling when fat, though not at quite so high a rate as the primest Scot. He is of the same colour but much lighter and genteeler than the Sussex ox, with the exception of not being so well horned. He is thin fleshed, light along the tops of his ribs, but what the butchers term "a sparkling cutter," i. e. his lean well intermixed with fat. The Devonshire cow is also red, with, in most instances, a starred or wholly white face, and much better horned than the ox; is exceedingly domesticated, she not unfrequently being the playmate of a cottager's children, a sure breeder, a good milker, and a quick fattener—she generally becoming tolerably fair grass-fed beef, when placed in good pasturage, in three months. The carcase of the Devonshire ox, moderately fattened, weighs from 110 to 130, when fattened for prize show 150 to 170 stones of 8 lbs; the Devonshire cow, moderately fattened, 65 to 85, when fattened for prize show 100 to 125 stones of 8 lbs. Devons and Welsh runts are either worked or fattened by many farmers who use ox ploughs or grazing farms in most parts of the kingdom, but Scots, notwithstanding their thriving nature and far-famed celebrity of their meat, are little known to the Sussex, Kent, or Midland and West-country grazier. I believe them to be scarcely fattened by any one in Sussex, except the Earl of Ashburnham and Lord Gage, whilst the graziers of Norfolk, from which country Smithfield draws at least two-thirds of its best beasts during a full moiety of the year, are unwilling to become acquainted with bullocks of any other breed than Scots or their home breeds, which are from a cross with them, though Devons have been strongly recommended to their notice by their venerable parliamentary representative, Mr. Coke, whom they designate their "father," and all highly esteem. Indeed there are no beasts finer in nature than are, nor carry their weight in less compass than do, Scots generally.

The best Pembrokeshire runts, too, come to quite as great a weight as do the best Scots, and though they require a whole year to become well grass-fattened, are good workers; and if turned into good keep, that is not over-stocked, will get their living without any fodder through a hard winter; and if not full-grown when turned off, grow while fattening to that degree as to afford the grazier, in *tolerable times,* a fair remunerating profit; but their pasturage must not be over-stocked, as in that event they become very *restless and bracky* even before they have suffered much from hunger. If they have to go over much ground in search of their living, they neither grow nor thrive. The Galloway, Fifeshire, and Aberdeenshire Scots, though these require less grass than the Pembrokeshire runts, like to have plenty to eat without being obliged to travel far after it; whilst the smaller kinds of Scots and North Wales runts will subsist through the winter upon a short sheep-bite, the little Scots becoming fat in the early part of the summer, the "North-Walesers," as the Welch drovers call them, growing considerable, and becoming sufficient meat to be slaughtered, by butchers who do not require beef of the first quality, in July.

Both the Welch and Scotch cows yield a fair quantity of milk, are gentle and hardy, as well as kindly fattening; but there is no cow of any breed in the United Kingdom, *of her size,* that yields any thing like the quantity of milk as that yielded by the little polled Suffolk cow, the carcase of which, when well grass fattened, and she is not more than seven years old, weighs no more than 65 to 75 stones of 8 lbs. As a confirmation of the accuracy of this statement, I make the following extract from the Appendix of *Young's Farmer's Tour,* published in the year 1771, since which date the breed has not undergone the least alteration either by cross or in quality. "Three cows, one of them a heifer after the first calf, the property of the Rev. Mr. Aspin, of Cockfield, in Suffolk, yielded, from June to December, 1770, 683 pounds of butter, the old ones, for some time in the height of their season, giving *eight gallons of milk per day!* These cows," adds the author, "were kept on only three acres of grass, without any change of pasture, till after mowing time, and in winter chiefly on straw, with very little hay. These particularly," subjoins the author, "are very valuable—they show that this poor-looking mongrel breed is greatly preferable for the pail to the large Holderness cow, which would have consumed all the food of the above-mentioned three cows without returning half the produce." I believe five gallons of milk at a meal is, at this time, considered a great yield for a cow of the most approved and improved short-horn breed.

Twenty five years ago Somersetshire had a breed of beasts it called its own, somewhat resembling that of Sussex, or, from the close and crescent-like form of its turned-up horns, and plated or variously coloured exterior and fleshy nature, was perhaps a cross between the Sussex and original short horn breeds. Wiltshire too owned, at that period, a long and wide-horned breed, closely resembling the old Staffordshire tribe, except being darker coloured, lower countenanced, and coarser hided, the effects probably of its being a cross between the Somersetshire and long-horned Irish breeds. Both the Somersetshire and Wiltshire breeds of oxen were, however, useful, heavy weighing animals, though the former stood rather high on its legs, especially behind; and were particularly adapted to the supplies of shipping, for which purposes great numbers of them were purchased by the Portsmouth butchers at Salisbury market; nor were they unuseful in the shop of the cutting butcher. But these, as well as those of Staffordshire, are either lost in various crosses, or have been allowed to become extinct.

The Somersetshire oxen yielded less hide but more interior fat than those of Wiltshire, the hide of which not unfrequently weighed from 20 to 24 stones of 8 lbs. The slaughtered weight of the Somersetshire and Wiltshire ox, they differing little in this, when moderately fattened, was from 125 to 150, when highly fattened, from 180 to 200 stones of 8 lbs. With the cows of these breeds I had scarcely any acquaintance, but as most of them were bred and kept upon dairy farms, they were most likely tolerable milkers, and I have been told kindly fatteners. On the steers and heifers of any breed I consider it unnecessary to make any remarks, every one acquainted with the attributes of live stock knowing that full growth points out what the properties of these must have been.

So numerous have been the crosses in bullock breeding during the last forty, aye, twenty years, that it is morally impossible to trace any of the crossed breeds to their pristine state; nor am I able to even hint which cross has been most successful, further than asserting that, from the best information I have been enabled to obtain, those crosses have been invariably the most fortunate where the bull has been of the lesser breed. It is, however, pretty generally allowed by all who have written on the subject, that we are indebted to the Dutch for our original short-horn breed; whilst our polled breeds, both Scotch and English, are supposed to be of Norman extraction.

Varro, according to *Dickson's Husbandry of the Ancients,* gives the following advice to the farmers of his time:—"Persons who buy them," meaning cattle, "should take care that they be well made, all their members complete, have long and deep bodies, with black horns, broad foreheads, large black eyes, hairy ears, close-set jaws, flat noses with wide nostrils, blackish lips, thick and long necks, hanging down dewlaps, broad skirts, round bodies, thick shoulders, a straight or gently declining back, round hips, tails with much hair on their lower part hanging down to their heels; rather short legs and straight knee joints." Subsequently signifying that which has black hair on its hide is the strongest ox, that which has red the second in strength, that which has dun-coloured hair the third in strength, and that which has white hair is the weakest and most delicate.

Hence from the close resemblance of the bullocks recommended by *Varro* to the Roman farmers, to our present best Scots and Welch runts, neither of which are the offspring of any recollected cross, it is possible for them to have been found here, in a wild state, when the Romans first visited this country and husbanded, or to have been brought hither by them during the time they were in possession of it. But, be this as it may, they, especially the Scots, are the most useful animals of their kind in the universe; nor do I know why there should be scarcely any distinction made between them, as the Welch runt, though not quite so fine natured or so fast a fattener as the Scot, is full as hardy, grows faster into weight when young, consequently is fit to be worked or turned off to fatten a year earlier, and is a more powerful and lasting worker than it. If the Scot merits the preference, it is from carrying a greater proportion of its weight in its primer parts, the smallness of its bones, and the completeness of its symmetry rendering it the most compact bullock, when fat, that makes its appearance in any market.

I have frequently heard a highly respectable butcher declare, that he slaughtered, on the same day, a Fifeshire Scot weighing 110, and a short-horn ox weighing 140 stones, both equally fat, and the short-horn a well-made animal of his kind, as also that the surloins and rumps, buttocks and aitch-bones, and fore-ribs of the latter were not two stones heavier than those of the former, the extra thirty stones of his weight lying chiefly in his legs and shins, shoulders and stickings, briskets, chucks, back-ribs, &c. &c. parts that would not produce at this time, in any of the metropolitan carcase markets, more on the average than from 3*d* to 3½*d*. per pound. Hence the reason why prime Scots are generally worth more, from 4*d*. to 8*d*. per stone, than the primest of almost any other breed of beasts; and hence the advantage of graziers stocking with beasts with good points and of convenient size.

The completest short-horned beasts that appear in Smithfield, are those from a cross between the Angus, Fife, or Aberdeenshire bull, and the original short-horned cow, which are distinguished by the designation of Durhams, though I believe the greater part of them to be fattened near to Boston, in Lincolnshire. But the cross I am informed, was the product of a Durham farmer; and what renders the success of it in England somewhat singular, it underwent a ten or fifteen years trial in Scotland, and in every instance failed to that degree as to, at length, cause the Scotch farmers to return to their old system. Perhaps the failure may be ascribed to the climate of Scotland being colder than that part of England in which the crosses have succeeded.

With the Irish breeds of beasts I have little or no acquaintance, but from the experience I have had, my opinion of them is not very favourable.

I have been, however, informed that when Irish beasts have reached their growth and are well fattened, some of them turn out well, but all allow that they are dangerous subjects for a butcher to have any thing to do with. Still there appears to be, amongst the butchers frequenting Smithfield, some who are continually purchasing them. Perhaps the principal inducement to this is their hide, from its prodigious weight and thickness, being worth more than the whole offals, or fifth quarter, of most other beasts of similar bulk to them. They have, for the most part, thick and long irregularly curved horns, bending downwards to that degree as to not unfrequently render it necessary to saw off their tips to prevent them from growing into the lower part of their face, the colour of their hair is chiefly red or brindled; they are low-countenanced, very throaty, i. e. have much loose hide growing under their neck; and have, as before signified, a thick and heavy hide, with large legs and shins. A great number of them are at this time fattened in Leicestershire, Shropshire, Somersetshire, Gloucestershire, &c. owing, probably, to their being bought in lean at a lower rate than any other description of beasts fed in this country. The best of these are said to be bred in the counties of Antrim, Clare, Clonmel, and Limerick. The Irish ox, the carcase of which rarely exceeds, when well fattened, 120 stones of 8 lbs., is said to be a slow but steady worker, and an occasional hard liver, the cow to be good for the pail, but much better in their own country than in this. There have been, I am told, in the course of the last five or six years, some advantageous crosses in Ireland between the Irish bull and our original, if such a one there be, short-horn cow.

Thomas Herbert.

UPON THE ADVANTAGES OF SHALLOW SOWING.

By Mr. Freiherrn von Voght, of Flotbek.

(Translated from the German.)

In 1824 I read for the first time, in Burger's Agriculturist's Instruction Book, published at Vienna in 1823, (the best instruction book that I know of in any language,) vol. 1. page 282, of the experiments which Burger and Messrs. Petri and Ugazzi had made as to the proper depth at which seed corn must be put in the ground, in order both to ensure its shooting forth and producing the greatest quantity of ears. The result of all the trials has been, that the seed sown one inch deep grew the fastest and brought most ears. I remarked also, that not only in the peasants' fields, but also in mine, the corn always sprang up unequally, and this not only as regarded the length or shortness of the time in which it became visible, but also with respect to the strength and fulness of the plant. Hitherto I had ascribed this to inequality in the germinating power of the seeds, since seeds sown close together, and under precisely the same circumstances, had brought forth very weak and very powerful plants. I thought also that some disease had hindered the corn in its unfolding, or that it might have suffered from worms. Turning my attention to the point in consequence of what Burger said about it, I took up out of many fields plants of the rye and barley which showed this difference, and found, almost without exception, that all the strongly growing plants were covered with very little earth, and that the seeds of all the weak plants were from one and a half to three inches from the surface. Each had shot out many little roots, and at the same time with the opening of the seed-leaves the coronal *knot* had formed itself immediately above the soil; roots and small shoots richly and strongly, and quite contemporaneously, and in nearly like proportion, sprouted out; even on the same side where a *crown* (main?) root penetrated into the earth, arose a new shoot. The broad fresh leaves promised to afford much nourishment to the plants from the atmosphere, and thereby to occasion a vigorous growth. How was it with regard to the more deeply sown seed? The little roots were few in number, and weakly; from the seed a small whitish pipe, from one to two inches in length, had sprung to the surface: the coronal *knot* formed itself on the surface, but with only a few meagre leaves, and one solitary ear alone expanded thereon.

The thriving, leafy and strong growth of the plants from the seeds remaining nigh the surface, was as striking as the wretched appearance of the roots, leaves and stalks of those from the deeper lying seeds. Both appearing to me to afford such a convincing argument in favour of the great advantages derived from slightly covering the seed, I sketched some specimens of both sorts of the rye and barley, and showed them to my friends. I observed several other plants differing in this manner during their progressive growth, and found that the weak plants produced but one sickly ear; whilst the strong ones had borne from three to six stalks, and full ears. My attention being thus excited, I made for many years several trials on a small scale, in places where I could more accurately settle the situations of the seeds. Not one experiment proved unfavourable to the shallow sowing. I particularly took for the purpose, summer-wheat, barley and oats, since, for reasons hereafter mentioned, the exposed state of a certain number of seeds (inevitable from the shallow underploughing of the seed) certainly causes the loss of some in the spring. My observations were as follows:—1st. That the plants laid three inches deep in the loose soil, after a few weeks scarcely lay two inches deep, which is to be attributed to the sinking of the land, whose great density must also render it more difficult for the little white pipes to penetrate. 2dly. The plants from the deeper lying seeds became visible in about eight or ten days later. The disadvantage of this tardy appearance is well known to every husbandman. 3dly. The seed-corn appeared in both cases, after twenty or one-and-twenty days, entirely hollow and decayed, but it took fast hold in the spot of germination with its roots; the plants also which came later to the surface were wholly without that nourishment which those near the surface received through their fresh seed-leaves (*cotyledones.*) 4thly. The whitish sheath, forming a tolerably hard skin, growing from the deeper lying corn, is defended by a small white pipe, which goes to the surface; as soon as it comes to the light some leaves and a *knot* are produced. This sheath and the deep lying small roots decay, and roots shoot forth afterwards from the *knot*. 5thly. There is a joint in the knots of the seeds lying nigh the surface, or rather the joint and the first *knot* are one. Hence shoot forth very quickly small roots of the thickness of a hair, which I have seen penetrate the clay with much force from two to three inches. In the September of 1827, I caused all the rye seed to be put very shallowly underneath the soil. After about three weeks, the plants which had been covered with half an inch of earth had already *branched*. The seeds which I had purposely laid on the surface without covering them, germinated ten days later, and put forth a leaf; whilst the slightly covered ones had already a small handful of leaves, rising from a powerful mass of little roots, which were full two inches long:—a wonderful provision of nature, which makes the plant thus fix itself more carefully in the soil, where its situation near the surface renders it necessary. I took especial notice of one entire ear which lay on the surface; it had put forth strong roots from each seed into the earth, and a powerful leaf above. I was never more convinced that one does not lose much by sowing in nature's fashion. From 1826 I had been considering in what manner to sow near the surface and yet to leave the seed somewhat covered. Small experiments had satisfied me that nothing would be gained by it if the surface were not pulverized, so as to allow the first little roots to penetrate easily and the young plants to fasten in the soil, which afterwards imbibe through their leaves nourishment for the later *crown* roots. I had already long ago remarked, and always with renewed vexation, that according to the old mode of sowing, the corn was not only at very unequal depths in the ground, but also very unequally distributed on the laod. If it was sown in a field that had been harrowed, the seed fell into the furrows made by the harrow, whose teeth stand seven inches apart. The cross harrowing does not properly spread the seed; the rows remain visible, the seeds are too close together in them, and few plants are in the six-inched space between the harrow tracks, a good deal of land is wasted, and an opening given to weeds. It is much worse when the seeds fall in the furrows. This mode possesses also all the faults possible for any way of sowing to have, the seeds being unequally distributed and different in depth. The Flemish harrow, whose teeth stand eight inches asunder, drawn diagonally by one horse, makes only a stroke of four inches. Mr. Coke's sowing machine, which is used throughout England, makes lines nine inches apart, and brings too many seeds into one line; but it possesses the advantage of sowing the seed throughout at the same depth and as shallowly as you choose. Of late years I have never harrowed where I have sown with this machine.

The arable land of Flanders, as well as mine, is too *fine* and clean to profit by *drilling;* all obtained thereby is an equal division of the seed, and the getting it near the surface. I found this was only practicable by employing a finer harrow, which the slack condition of the fine particles permitted to be used. In 1826 I had made some small iron and wooden harrows, whose teeth stood three inches and a half asunder. These I had, before sowing, dragged over the already finely harrowed land. I harrowed in with this, and with the Flemish *schleppzinne* harrow. I gained greatly in the equal coming up of the seed, in the number of *branched* plants, and their equal condition. For the sake of comparative experiment I had always managed a few fields in the old way. In 1827 I had a Flemish harrow made, with teeth three inches apart. It requires two horses, but its operation is very great. In 1828 I provided against the fault noticed in it, (that it shoved forward even in finely harrowed land,) by dragging it over the field, *with the horse attached to the centre,* after I had harrowed the land finely with the old Flemish harrow. By means of the wavy lines which it makes, all small clods become loosened. Then I have the field dragged over with a strong harrow reversed, which, in case of need, I loaded; and I afterwards draw sharply over it the Flemish garden-harrow, with the horse yoked cornerwise. Thence come lines an inch and a half from one another. At this distance falls the seed, and then I have it crossed either with the old or the new Flemish drag—the first when I fear that the harrow may shove the soil forwards. No garden-harrow can make the soil so fine. The plants thus sown stand from one and a half to two inches from each other, covered over in the earth to the depth of an inch, strong and healthy, as if they had been planted. I can appeal to the testimony of all agriculturists who have in former years visited Flotbeck, or of those who are willing to honour it this year. The fields which in 1826 and 1827 I had harrowed in as shallowly as possible, gave a result conformable to the improvement of the harrowing. In 1828, after sowing with the garden-harrow and harrowing with the Flemish drag, I had 17 per cent. more corn, and 14 or 15 per cent. more straw, in the light clay land of Little Flotbeck, than in the fields sown after the old method; in Great Flotbeck, than in the fields sown after the old method; in Great Flotbeck, in the best sandy soil, 20 per cent. more corn, no difference in straw; in the worst sandy soil, 10 per cent. more corn, in straw no difference. That, however, which I last autumn, for experiment, have sown or got under after the grub-furrow or the coarser kind of harrow, stands, notwithstanding the careful harrowing in with the usual harrow *unequally, crowded in lines,* and less strong, than that sown after the Flemish garden-harrow, and dragged in with the common Flemish drag. [*British Farmer's Mag.*

AGRICULTURE IN FRANCE.

It is mentioned in Mr. Mark's report from the committee on agriculture, in the Senate, that the wealth, power and happiness of France are chiefly attributed to the forecast with which she has introduced on her soil productions which were native to other countries. There is perhaps no enterprize in rural economy, devised by the genius of a single man, more important in its results than the first plantation of the mulberry in the garden of the Thuilleries, formed in the commencement of the 17th century, by the command of Henry IV. At this moment, the raw silk annually produced in France amounts to four million dollars; the manufactured silk is more than treble that value. The olive and the fig were, in like manner, adopted in the agriculture of France. The vines indigenous to that country were not superior to that of the American forest, yet at present the lands of France, employed in the cultivation are estimated at more than three thousand five hundred millions of acres, and the annual product average $122,000,000.

No country, it is remarked, ever presented a finer theatre for agricultural pursuits than the United States. The landlord is not borne down by feudal tenures, vexatious tithes, oppressive taxes, or exhausting poor rates. There is fertility and cheapness of land, and navigable rivers penetrating far into the interior, aided by canals and artificial roads; besides which the variety of soil and climate encourage the introduction of esteemed exotics. Our cotton alone is a vast mine of wealth; we have sugar and may have the vine, the mulberry, the olive and the fig. The improvement of our agriculture depends in a vast degree on the judicious system of the roads and canals; for profits are enhanced as the expenses of transports are diminished, and the producer is thus enabled to compete fairly with foreign producers in foreign markets. It is stated in the report of the canal board in New York, that many can recollect the time, previous to the construction of the Erie canal, when it cost from eighty to a hundred dollars to transport a ton of merchandize from Albany to Buffalo. It is supposed that the value of property in the vicinity of the New York canals, has been increased four or five times the amount of their cost, or to the amount or forty or fifty millions.

TO FARMERS.

The season of the year is approaching, when the old adversary, who has destroyed so much of our profits, and broken our tools, and beaten our cattle, will be hovering about our farms, and offering his services. His name is STRONG DRINK. But he is strong, only because he overthrows. He makes no man strong. We want none of his help. Our hoeing and haying and harvesting will be done better without him than with him. The times are hard, and he is an expensive companion. He will cost us more for the summer, than all our taxes for the year. Let us, therefore, at the outset, all resolve that we will not employ him. Whether we belong to Temperance Societies or not, like them or hate them, no matter, let us, this year, have nothing to do with rum or whiskey.—*American Sentinel.*

THE ARMY WORM.

The army worm has made its appearance, and is very troublesome to our farmers, who are busily engaged in digging ditches round their wheat and corn fields. We were informed by a gentleman that he killed about five barrels full of them, by dragging logs through the ditches—thus crushing them to death.

In a paper by Dr. Brewster, on Polarized light, which was read at the Royal Society, it was suggested that the icebergs which have been lately fallen in with, in the southern hemisphere, have been separated from a Southern Polar continent by a recent earthquake.

HORTICULTURE.

CULTURE OF SILK.

J. S. Skinner, Esq.

The following letter affords information of great value to persons contemplating the culture of Silk. I particularly invite attention to the remarks which are printed in *italics* at the close of the third paragraph, relative to the ease with which all branches of the silk culture may be learned and practised. The intelligent people at Economy find no difficulty in reeling silk; let this be borne in mind by those who are endeavouring to sell cocoons.

That there may be no doubt as to the correctness of the statements in this letter, it is proper to observe, that the writer, Mr. Rapp, is the principal, or head of the very respectable society at Economy, Pennsylvania, and that his statements are entitled to the most unlimited confidence.

Here we have a practical illustration of what can be done in the way of making silk in this country, and I beg leave to call the attention of the whole doubting family to the facts stated. I particularly commend the letter to the attention of those who insist upon the difficulty of acquiring the art of filature—reeling silk. I may be permitted to relate an anecdote in point here. About three weeks ago, a lady from the Eastern Shore called on me to know where she could sell cocoons. I could not inform her; and recommended that she should reel them herself. She thought she would not be able, and I handed her a small treatise on the subject which had been published in the farmer. She went home, and a day or two since I learned that she had with little difficulty succeeded in reeling and making most excellent silk, *on the common family reel.* It may be added that my correspondence from all parts of the country furnishes the gratifying intelligence, that the silk culture is making rapid progress.

Gideon B. Smith.

Economy, (Pa.) June 30th, 1830.

Gideon B. Smith, Esq.

Sir,—Your favour dated 29th ultimo came to hand in due course. I am in some measure surprised to hear that the small experiment, which has been made by our society in the culture of silk, should have drawn the attention of travellers so much, as to transport the news to the principal cities of our great republic; and while you apologize for your inquiry, I have only to say that I feel pleasure in giving any information in my power on a subject, which I consider of very great interest and importance to the general welfare of our enterprising country, for the promotion of which you have done so much.

In reply, I would mention, that in the spring of 1828 we made a small beginning to raise silk worms, which has been attended with good success. We made of the first crop some 15 or 18 yards of stripe for female apparel and vesting. Last year having about 30,000 worms, we again made some vesting, and near *one hundred handkerchiefs of a good quality,* being the first ever made here, or this side of the mountains. We did not wish to sell any, but distributed them, for sake of encouragement among the members of our society, particularly among those immediately engaged in attending and promoting this juvenile branch of domestic fabrication. Finding the experiment to answer well, we have erected, a two story house, 24 by 44, particularly arranged and adapted for the worms, as well as the various operations of the silk manufacture, and have at this time, near one million of worms, in a prosperous condition; two thirds are now spinning and done spinning. Having only about 1500 of the white mulberry trees from two to three years old, which do not furnish feed enough, we gather the leaves of the black mulberry in the surrounding timber land, which have heretofore answered as well as the white. This season however having been very wet with us, the worms fed on the black did not continue so healthy, neither did they produce so large a cocoon, as those fed exclusively on the white. It is more proper to confine one set of worms to the same leaf, as a change from black to white, or from white to black, does not agree so well with the worm.

Females from 12 to 15 years of age, are amply sufficient to attend to the worms, within doors; the leaves are gathered, and brought in by the school children after school hours. Upon the whole we are highly pleased with the experiment, and consider it a pleasant and agreeable employment, mostly for a class of people, who in a general way, do not apply their time to the best advantage. *Adhering to the instructions given in the "American Farmer," and books treating on the culture and manufacture of Silk, we find* NO DIFFICULTY *in keeping the worms healthy, unwinding or reeling the silk, or weaving it.*

The culture of this commodity and the manufacturing of it cannot be too strongly recommended, to the American public, as the United States possess climate and soil in abundance for the attainment of this desirable object.

Not many years have elapsed since the first attempt was made by our society to manufacture broadcloth by machinery this side of the mountains; the undertaking was then thought preposterous by many persons; but that enterprize has been crowned with good success. Numerous woollen and cotton factories have been erected to accompany the former, and I have no doubt in a few years to see the third branch, even silk manufactories, added to the number in our happy country.

I leave it optional with you either to publish the above or part of it, as you deem proper.

Respectfully yours, &c.

Frederick Rapp.

SILK WORMS.

Jonathan H. Cobb, Esq. of Dedham, is now exhibiting in Boston, 10,000 silk worms, feeding on Mulberry leaves, together with the eggs, cocoons, the raw silk, and the machine on which it is reeled. These singular little creatures, who furnish half the world with their richest clothing, are in themselves a great curiosity; and they become more so from the conviction that silk must, sooner or later, be a valuable source of wealth in this country. A little more knowledge of the skill and economy used in its manufacture is, we apprehend, all that is now wanting; 12½ cents is the price of a single ticket, and 50 cents for the right to go in during the whole exhibition, which will last until the worms just hatched have finished their cocoons,—a period of several weeks.

In China there is a species of wild silk worm, that feed on the leaves of the oak and ash. They spin strong grey silk, from which a kind of coarse cloth is made, that will bear washing. Is ponjee made of wild silk? The strings of musical instruments are made of it, because it is stronger and more sonorous. The Chinese Empress keeps a feast in honor of silk worms, similar to the Emperor's Feast of Agriculture; on which day she goes into the forest near the palace, and with much pomp and ceremony gathers with her own imperial hands three branches of the mulberry tree. The care of the young worms is confided to an intelligent woman, who is called *Tsam Mou,* or *Mother of the worms.* She is particular to have on very clean clothes, and not to touch wild endive, the smell of which is injurious to silk-worms; and she must wear a very thin dress, in order to judge of the suitable degree of warmth in the room; for the Chinese use no thermometer.

Leaves covered with dew, or that have in any way imbibed an unhealthy smell, are unsuitable for worms; it is likewise a pernicious habit to sprinkle the leaves to keep them fresh. The leaves should be renewed three or four times a day.

The Chinese have a prejudice that leaves kept some time in the bosom, to imbibe the moisture of the body, are excellent for silk-worms.

Silk is so plentiful in China, and labor so cheap, that all persons in easy circumstances, whether male or female, wear silk, satin, or damask: the very uniform of the soldiers is made of it. The ancient name of China, among the Romans, signified the country of Silk. The Chinese consider the chrysalis of the silk worm dainty food.—*Mass. Journal.*

Some beautiful samples of silk produced at Windsor, North Carolina, have been sent us for inspection. A company of a few individuals in that place have this year raised by way of experiment 200,000 cocoons.—The expense is represented as trifling, and the business as capable of indefinite extension. The cocoons sent are large and handsome, and of various colors, from a bright yellow to a snowy white. Those marked as raised by feeding the insect on the white mulberry tree are larger than those raised by feeding it on the black. The specimens of silk manufactured into thread are even, lustrous, and of exceeding strength. As this is one of those manufactures which has been commenced, and we doubt not will flourish in our country without the aid of forcing systems, and the adaptation of our climate and circumstances, to its successful prosecution, we are happy to record the evidence of its progress.—*N. Y. Eve. Post.*

(From the New England Farmer.)

REMARKS ON VEGETABLES.

NASTURTIUM.

The blossoms of Nasturtium have been observed to emit electric sparks towards evening, which was first noticed by the daughter of the illustrious Linnæus, who could not credit the account until he had seen the phenomenon. It is seen most distinctly with the eye partly closed.

The flowers, as well as the young leaves, are used in salads, being of a warm, spicy, agreeable taste, and an excellent antiscorbutic. The nasturtium blossom is serviceable in a weakness, or pain of the stomach, proceeding from cold and flatulencies.

ONION.

Pliny recommends onions to be kept in corn or chaff, and informs us, that the Romans made poultices of onions and barley meal, for those who had watery eyes. He says, onions clear the sight by the tears they draw; they used them to cure the sting of serpents and other reptiles, and the juice was given to those who suddenly became speechless.

The many domestic purposes to which this strong scented vegetable is applied at the present time, are known to every one: its nature is to attenuate thick viscid juices; consequently, a plentiful use of it in cold phlegmatic constitutions must prove beneficial. Many people shun onions on account of the strong disagreeable smell they communicate to the breath: this may be remedied by eating walnuts, or a few raw parsley leaves, immediately after, which will effectually overcome the scent, and cause them to set more easy on the stomach.

GARLIC.

Every part of the garlic, but more especially the root, has an acrimonious and almost caustic taste; it abounds in sharp subtile particles, which render its odour so powerful and penetrating; that, if it be applied to the feet, its scent is soon discovered in the breath, and when taken internally, its smell is communicated through the pores of the skin, even to the fingers. Hence in cold and phlegmatic habits it proves a powerful expectorant, diuretic, and emmenagogue, and, if the patient is kept warm, a sudorific.

This pungent root warms and stimulates the solids, and attenuates tenacious juices, by its penetrating powers. It is said, that if a clove of it be kept in the mouth. it is an effectual preservative against infection. The Hungarians esteem it the most efficacious preventive against pestilential disorders.

Sir William Temple, in his treatise on health and long life, says, "Garlic has, of all plants, the greatest strength, affords the most nourishment, and supplies most spirits to those who eat little flesh. It is of great virtue in colics, a great strengthener of the stomach upon decays or indigestion; and I believe, (if there be any such,) a specific remedy in the gout. I have known great testimonies of this kind within my acquaintance, and have never used it myself upon this occasion without an opinion of some success or advantage."

If garlic be boiled, and given to chickens with their food, it will generally prevent that pest of the feathered tribe, the pip.

PARSLEY.

Parsley seed should be sown in the spring; it remains six weeks in the earth: it never appears in less than forty days, nor does it often exceed fifty; thus it takes longer to vegetate than any other known seed of vegetables; but it is observed that old seed comes up earlier than new.

We are told by ancient authors, that when fish became sickly in ponds or stews, it was a common practice to throw in parsley, which greatly revived them.

This herb is good for sheep that have eaten a kind of wild ranunculus, which causes a worm to destroy their liver. It is also said to be an excellent remedy to preserve sheep from the rot, provided they are fed twice a week, for two or three hours each time, with this herb. Parsley has been sometimes cultivated in fields for this purpose; but hares and rabbits are so fond of it, that they will come from a great distance to feed upon it; so that those who wish to draw hares on their estates have only to sow parsley in their parks or fields.

To preserve parsley for the seasoning of meats, &c. let it be gathered on a dry day, and immediately put into a tinned roasting screen, and placed close to a large fire; it will then soon become brittle, when it may be rubbed fine, and put into glass bottles for use.

GOOSEBERRIES.

The editor of the Richmond Whig, recently saw a gooseberry four inches in circumference.—The gentleman in whose garden it grew, procured two years ago a number of choice kinds from Prince's garden, New York, and cultivated them with great care.

The first year, the "Golden Prince" and "Rough Yellow," produced several berries, measuring from 2½ to 3½ inches in circumference. This season the "Golden Prince" has increased in size half an inch, measuring 4 inches. The "Hamilton Green" produces very fine berries measuring from 3½ to 4 inches round. The "White Rock" is a beautiful berry, perfectly transparent, of good size, from 3 to 3½ inches in circumference, and overloaded with fruit.

WEEDS' BANE.

To prevent the growth of weeds round fruit trees, &c. which materially injure their productiveness, the Germans spread on the ground, particularly round the fresh-transplanted trees as far as their roots extend, the refuse stalks of flax after the fibrous part has been separated. No weeds will grow under the flax refuse, and it keeps the earth fresh and loose. Spent tan is a substitute for these stalks, which may be prevented from blowing away, by being covered with twigs.

A surgeon at Lausanne has been devoting his attention to simplifying the dressings and ligatures employed in the treatment of wounds; and has endeavoured to shew that simple rags and water may be advantageously substituted for the lint bandages of all kinds, and various medicaments at present used for that purpose.

INTERNAL IMPROVEMENT.

Chesapeake and Delaware Canal.

The Eleventh General Report of the President and Directors of the Chesapeake and Delaware Canal Company was made on the 5th June. We abstract from it the general features of this great work:—

The canal is 13 5-8 miles long, and 66 feet wide on the surface, and has 10 feet depth of water, having two tide, and two lift locks, of 100 feet in length, by 22 feet in breadth, within the chamber, and capable of passing the class of vessels usually employed in the bay and coasting trade. At the eastern termination of the canal, at Delaware city, a harbour of substantial wharf work extends 500 feet along the shore, from which two piers, that distance apart, now project 250 feet into the river, and are protected by the guns of Fort Delaware, in case of war. The Delaware tide lock, which opens the communication between this harbour and the canal, being dug eighteen feet below tide-water, through peat and soft mud, was difficult and expensive of construction, especially in finding a proper foundation. This required 800 deeply driven piles. The canal is here enlarged to 90 feet, to form a basin for vessels waiting to pass the lock.

The 1st section was cut through soft mud, and is 29 chains long. The 2nd was cut principally through loam and sand, a depth of 16 feet, and is 32 chains long. The 3d extends to the village of St. George's, a distance of 3½ miles, and presented no ordinary difficulties, being carried through a deep morass or peat bog, unsuitable for embankments, (the earth for which had to be brought from the nearest fast land,) and several times crossing George's creek. These embankments are supposed to have sunk in many places from 60 to 100 feet, causing masses of earth to rise in the canal, and thus increasing the amount of excavation. At the village of St. George's, a lock of 8 feet lift opens the communication with the 4th section, on the summit level. That section required for half a mile a very heavy embankment. Beyond that distance, the water has been permitted to flow on both sides of the towing path or embankment, to relieve it from pressure. To prevent abrasion, a slight wall 18 inches high, has been made; in other places small loose stones have been used. This 4th section is 3¼ miles long. In the 5th section the deep cutting commences, and the difficulties and disasters encountered were almost appalling. From the depth of excavation in a soil where clay often reposed on quicksand, immense masses from the sides slipped into the canal. A heavy stone wall, from two to five feet thick, and 16 feet high in the slope, has been extended therefore along each side of the canal for 3½ miles. Several thousand piles have also been driven. This part has now been drained, and the slides thus prevented. In this section, near the summit of the deep cut, the canal is crossed by a bridge of a single arch of 248 feet, and 90 feet high. The average depth of excavation in this section, which is three miles 58 chains long, is 36 feet; the extreme depth 78 feet. The 6th section is principally embankment, and so is the 7th, at the western end of which a lock of six feet lift communicates with a basin 150 feet wide, and 500 feet long, which, by another lock, communicates with Back creek, a branch of Elk-river. There is every where an ample supply of water, and any deficiency could be raised by tide or other power, at a trifling cost.

The canal was commenced on the 15th of April, 1824, and was opened on the 17th October, 1829, from which time till the 29th January, 1830, there had passed 798 vessels and boats, paying $8,552 59. From 23d of February to 1st of June, little more than three months, 1634 vessels, and boats passed, and the tolls amounted to $18,613 20. It is probable that the tolls during even the first year will amount to $60,000. A portion of the Susquehanna trade, and that of the Chesapeake and its tributaries, has found its way through this avenue to Philadelphia, and preparations are making for a more extensive trade. In three months of this year, 300 passages were made through the canal between Baltimore and Philadelphia, principally by regular packets. The Report says:—"To the usual increase of trade incident to all new works of internal improvement, may be added other fruitful sources that require a few years yet to be fully known. The Chesapeake and Ohio canal, the Dismal Swamp canal, and the Baltimore and Ohio rail-road on the south—and the Delaware and Raritan canal, and the Delaware and Amboy rail-road on the north—will, when completed, open and facilitate the intercourse between different sections of our country, and create an inland trade, which must pass through the Chesapeake and Delaware canal—the great avenue between the north and the south. The saving of insurance, of time, and of risk, and the reduction of freight consequent to these causes, and the increased burthen a vessel is enabled to carry above what would be considered a full cargo for a sea voyage, all combine to give this channel a preference over a passage by the coast."

The original estimate of the cost was $1,354,364; the actual cost was $2,201,864, an excess of $847,500. A considerable portion of this excess, however, was caused by the enlargement and depth of the canal, by the increased size and strength of the embankments and stone walls, by the more substantial and perfect construction of the summit bridge; and by the increased dimensions and improvement of many very important portions of the work.

LADIES' DEPARTMENT.

FEMALE EDUCATION.

At a time like the present, and in an age of improvement like this, when Christianity is planting its standard on the ruins of paganism and idolatry, when science is throwing open its portals to the entrance of the mighty and the mean—when "man is seeking, through blood and slaughter, his long lost liberty," it is a source of much gratification to perceive the fairer part of creation, whose rights have so long been slumbering in darkness and neglect, beginning to assume to themselves the dignity and station in the round of human existence to which nature and reason entitle them.

There are few subjects which draw after them a train of more interesting consequences than *female education;* no matter whether we view it as relating to the welfare of society at large, or with a tendency to individual happiness, it still presents a claim to our consideration which we should not neglect. Upon the distribution of knowledge depends the stability of our liberties, and where can the seeds of this knowledge be better sown than in the nursery, and whose hand is better calculated to direct the tender scion than that of a mother. The situation in which she is placed by the laws of nature and the rules of human society, of being the constant guardian and companion of youth during the hours of infancy, and the subsequent influence she exerts over her offspring, give her the opportunity and power, of moulding in almost any form her judgment may dictate, and impressing on their minds the first rudiments of education. How important, then, is it, that she should possess the capability of performing this office so necessary in spreading the germs of knowledge. I have never myself given the least credence to the opinion, I sometimes hear expressed, that the female mind is not sufficiently strong to receive the improvement necessary to enable her to discharge this office, or when so improved, it tends to render matrimonial life unhappy. I have always thought that when the female mind enjoyed the same sphere of observation, and the same opportunity of information, it has never yielded supremacy to man. We have something of evidence of this in all orders of society. The influence which she exerts is powerful, though as silent as the feathered footsteps of time. Wherever man goes, whether he climbs the summits of the Andes, whether he scours the sandy desert, or seeks a home on the restless wave, he feels the charm and yields a silent obedience to the supremacy of its power. Woman was not created to be as a hireling or a slave. Nature has thrown around her attractions and qualifications that fit her for a different sphere. Her path through life, though perhaps it may in some measure lead through "flowery meads and verdant dales," yet it requires all the boasted powers ascribed to men to enable her to "preserve the even tenor of her way." In the discharge of her duties, whatever they may be, they are thronged with the same difficulties, and require the same energy to perform, that attend the pathway of men.

If knowledge has unrolled its ample page to her view—if education has regenerated and enlightened her mind, how "happy would she go on rejoicing in her way." Interest and gratitude speak to man in a voice which cannot be misunderstood, to the great means of acquiring this knowledge which will yield him so abundant a harvest of profits and pleasure. Their relative dependence the one upon the other, call for it. The first for *her* protection and support, the latter for that sweet peace which is only in her power to give. It is from her that all man's joys and pleasure emanate. His fire-side is the throne of his happiness, and if ignorance, accompanied with the grosser feelings of our nature, spread its mantle there, how gloomy is the scene. The cultivation of the female intellect cannot detract from the power, influence, or pleasure of man. It will bring no "rival in his kingdom"—it will not render her conversation less agreeable—it will not render her judgment less sure and certain in the management of the domestic affairs of a family—it will not render her less capable to discharge the duties of a mother in rearing and correcting the sentiments of those over whom nature has ordered her to be the natural guardian and tutor. When man finds his little all swept from him by repeated misfortune, it will not render her less capable to "soothe his melancholy mind." When he finds himself stretched upon a bed of sickness certainly knowledge and information, added to the tender feelings of her nature, will not incapacitate her to administer the "balm of Gilead" to his fevered mind.

MISCELLANEOUS.

GOLD DIGGING IN NORTH CAROLINA.

J. S. Skinner, Esq. *Wake Co. N. C. June* 23, 1830.

Society, Mr. Editor, has in all ages been led rather forward by the delusive suggestions of imagination, enticed to lend a willing ear to the whispers of hope, rather than to follow the sober dictates of reason.

The preceding remark is made from a train of reflections into which my mind fell in ruminating on the probable influence which the "gold mines" will exert on the agricultural condition of North Carolina. Already do I perceive in the long perspective the plough suffered to rust in the half finished furrows and rank weeds.

> "And fumitory and hemlock and darnel
> Choke up the fattened glebe." *Shakespeare.*

The hope, the wish to grow suddenly rich, Midas like, to convert all *we touch* into gold, seems to be an almost innate propensity in the bosom of man; hence is it that we see projectors, men of busy, mischievous brains, running about "seeking whom they may devour;" purchasing golden dust from one tract of land and placing it on another, thereby deluding the incautious purchaser, who, raging with the "gold fever," takes away his "hands" from his cornfield and sets them to digging for gold! Mounted in his gig, as he traverses the streets of our little villages, his imagination soars aloft and he fancies himself the "observed of all observers"—and he is right; he is so: for you may hear the busy whispers as he moves along amongst the crowd, ask "what large man is that?" (now additionally swoollen!) Oh don't you know? Why that is Mr. P. who owns the great B. mine, who has broken up his farm, and invested *all he has* in gold mines, "indeed! and is he like to do well?" Oh yes, so many *pennyworths* a day; whole bars of gold, &c. "Has he any daughters?" No. "Ah, indeed! well that's bad." Already do I fancy to myself that the *golden days* of romance have returned, and presently we shall see Don Thomas, and Don Joseph with their golden spurs and their squires all out in pursuit of "excitement" whilst their *tenants are farming* and they themselves become models of chivalry, and whilst the mild rays of the moon shines along the blushing bunches of our upland vineyards, soft serenades are heard in the distance, casements opening, earthly peris listening to

> "Look out and shame the stars,"

and the tinkling bells of the mules chiming in so well with the guitar.

Farewell, a long farewell to the blooming orchards, the cultivated fields,

> "The mill beside the rill,"

the blooming meads and stubbled hills; and oh, ye blooming milk maids, that were wont to cheer the morn and eve with your pleasant songs when the vine was in bloom, and the voice of the turtle heard in our land. Now will you don the silken snood and the golden brooch,—Oh pleasant shades, a long farewell, Arcolo's occupation's gone.

Eheu fugaces, Postume.

Arcolo.

(From the Journal of Health.)

Comparative View of Diseases among different Trades-People.

In the Magazine for foreign literature, a celebrated German Journal, we have met with a very interesting article on the comparative diseases of journeymen tailors, cabinet makers, and bakers, in Hamburg. The total number of tailors under treatment was 785—of cabinet makers, 511—and of bakers, 71. The deaths of the first class, were 84—about one in every nine; of the cabinet makers, 21—nearly one in every 25; of the bakers, 4—nearly one in 18. The diseases most destructive in debilitated constitutions, were the cause of a greater number of deaths among the first class than among the second. Of those affected with nervous fevers, one third of the tailors, and but one seventh of the cabinet makers died. Of twelve cases of imflammation of the bowels, of which seven occurred in tailors, and the remainder in cabinet makers, all of the former died, and the latter recovered. One half of the deaths among the cabinet makers, and one third of those among the tailors, were from consumption of the lungs.

The following table exhibits the proportions affected with the principal diseases, compared with the total number of patients of each trade:—

Diseases.	*Tailors.*	*Cabinet makers.*	*Bakers*
Catarrhal fever, -	1 in 6	1 in 9	1 in 6
Rheumatism, -	1 in 15	1 in 14	1 in 6
Nervous fever, -	1 in 12	1 in 24	1 in 18
Fevers and ague, -	1 in 10	1 in 17	1 in 18
Inflammatory fever, -	1 in 93	1 in 64	— —
External injuries, -	1 in 98	1 in 22	1 in 35
Ulcers, - -	1 in 98	1 in 12	1 in 14
Spitting of blood, -	1 in 4	1 in 106	— —
Asthma, - -	1 in 131	1 in 170	1 in 24
Inflammation of the liver,	1 in 98	1 in 170	— —
Jaundice, - -	1 in 60	1 in 73	— —

For forming an estimate of the comparative mortality of different trades, as remarked by Dr. Hawkins in a recent work, we possess but few materials. The following items, are all that he has been able to collect, in regard to this curious and interesting subject.

In a statement published lately of the deaths which occured among a society of 50 plumbers, it is stated, that, during seven years, *fourteen* members have died, all under 60 years of age, and of diseases induced by this business—principally of the painters' colic and its consequences.

According to Dr. Allison, there is scarcely an instance of a *mason* regularly employed in hewing stone at Edinburgh, living free from consumptive symptoms to the age of 50: and we may add, that they who quarry stone at Fontainbleau for paving and building in Paris, rarely survive the fortieth year.

The cultivation of the sciences, appears particularly favourable to longevity: there can be but little doubt that an individual who exercises his mind as well as his body, has a fairer prospect of life than the one whose body alone is occupied. In accounting for the greater length of life enjoyed by the man of science, than by the labourer, we must, however, take into consideration the exemption of the former from many of those external causes of disease to which the labourers and mechanics in consequence of their poverty, especially in Europe, are constantly exposed —we suspect, also, it will be in general found, that the former live a much more temperate life than the latter.

Franchini has enumerated 104 Italian mathematicians of different epochs: he has ascertained that of 70 of these, 18 attained the age of 80 years, and 2 of 90.

In France, according to Mr. Berard, 152 men of science and letters have been taken at random: half the number appear to have cultivated science, and about half to have been devoted to general literature: on computation it was found, that the average life of each of the 152 individuals, was 69 years.

The rapidity with which the newsmen are now supplied with newspapers may be seen by the announcements as to the hour at which the publication commences and terminates; and the expeditious mode of receiving and sending out news was exemplified by the fact, that frequently the news in the Paris papers of Monday evening will be at Birmingham, in the *Times*, on the following Wednesday,—a distance of 370 miles being performed in forty-eight hours; which include the time for translation, for composition, and for printing in nearly 10,000 copies of the paper. When the late Emperor of Russia was at Oxford, he was surprised to find on his breakfast table a London paper, containing a long account of his reception there on the preceding afternoon, and he exclaimed, in French, to one of his attendants, "Faut il s'etonner qu'une telle nation soit puissante." But this was nothing in comparison with what is now done; for, on that occasion, expresses were exclusively used for the paper in question; but now, by a common post-office arrangement between the two countries, and by greater facilities in the machinery of printing, and the expedition of coaches, the whole distance, except from Dover to London, is performed without any extraordinary expenditure. [*Lon. pa.*

Some workmen who were employed in digging a field near the ruins of the amphitheatre of Merida, in Spanish Estremadura, in order to lay the foundation of a house, found a great many bones, some of which belonged to the hyena and some to the elephant. There were also some human bones. At a short distance from the same place several pieces of money were also discovered, but they were so much disfigured that it was impossible to decipher the inscription on them. Besides these things they found two vases of the beautiful marble which is dug from the mountains of the Sierra Morena, at three days' journey from Merida. These vases are in fine preservation, and are beautifully sculptured.

[*London pa.*

RECIPES.

SNAKE POISON.

A Mr. M'Corwick of Newton, (Ind.) publishes that pulverised charcoal made into a plaster with hog's lard, is a grand antidote to the poison of snake bites. With it he cured a child which was bitten by a copper head, in both ancles. So rapid was the progress of the poison that in five minutes after the biting, the child's tongue was swollen, and green matter ejected from the stomach; "but the effect of the antidote was nearly as instantaneous as the poison," and the child entirely recovered The ointment was applied every half hour for twelve hours. One editor suggests that it might be a good application for the sting of the bee and other insects.

FIRE AND WATER-PROOF CEMENT.

To half a pint of milk put an equal quantity of vinegar, in order to curdle it, then separate the curd from the whey, and mix the whey with the white of 4 or 5 eggs, beating the whole together. When it is well mixed, add a little quick-lime through a sieve, until it has acquired the consistence of a thick paste. With this cement, broken vessels and cracks of all kinds may be mended. It dries quickly, and resists the action of fire and water.

REMEDY FOR THE TOOTHACHE.

Put a piece of unslaked lime, about the size of a walnut, in a quart bottle of water, and keep it corked. Cleanse the teeth with a brush every morning, using this water, and rinse the mouth with it after dinner and tea. If the water is too strongly impregnated with lime, dilute it. This practice will not only prevent the toothache, but will preserve the teeth.

CURE FOR CORNS.

Take a small slice of raw, lean, fresh beef, about the thickness of a dollar, and bind it on the corn; do this three or four successive nights, and the cure is said to be certain—try it.

THE FARMER.

Baltimore, Friday, July 9, 1830.

Hail Storm.—A destructive hail storm occurred in Kent county, Eastern Shore, Md. on Monday 28th ult. A gentleman of Baltimore, who was there at the time, gathered and left with us a specimen of the fragments of corn stalks and wheat straw, from the fields which had suffered from its violent peltings. The corn stalks of nearly full size are as perfectly cut in two as they could have been by a six pound shot; and the blades and wheat straw are mangled to such a degree that they appear to have been passed through a threshing machine. We have been unable to learn the extent of country which the storm passed over, or the amount of damage. The gentleman informs us that the fields of grain that came under his observation were completely destroyed.

We observe it stated in the papers of the different sections of the country, that at about the same hour of the same day, a similar hail storm occurred below Annapolis, in Maryland, in the lower part of New Jersey, and in several parts of the State of New York.

☞ Public Gardens.—It is matter of surprise, that some of our spirited citizens do not establish a public garden. While nearly every other city in the Union is almost environed with splendid establishments of the kind; and while Baltimore herself can boast almost unequalled splendour in every other department of taste, science and the arts; we have not a solitary public garden, to which we can invite the stranger or retire ourselves. And this too is the more unaccountable from the fact, that the pleasures of the garden are the most delightful, innocent, and cheap, of all the sources of enjoyment presented by either art or nature. What soothes and calms the troubled mind equal to a walk among the flowers and shrubbery of the garden? The endless variety of foliage and flower, of beauty and fragrance, commingled, diffuses a delicious oil over the troubled waters of the human mind, that produces a state of mental quietude and happiness to be found no where else, except, perhaps, in the enjoyment of music, and even there in a more limited degree.

It is believed that a public garden convenient to our city, properly laid out, planted, and conducted, would yield a better income to the proprietors, than any other investment of an equal amount of money. That the reader may understand how things of this kind are done in other cities, we copy the following:—

(From the Philadelphia National Gazette.)

We were glad to see "honorable mention" made in New York newspapers, by a traveller, of one of the *Botanic Gardens* in our immediate neighborhood, or rather, within this city. There are three beautiful establishments of this kind between Broad street, and the river Schuylkill, at a short distance from Market street extended. We have been in the habit of visiting two of them,—those of M'Arann and D'Arras,—as an easy and refreshing promenade, to admire the gravelled and shady walks, the convenient arbours, and the large and brilliant collections of exotic and indigenous plants cultivated and distributed with care, science and taste. The nearest of them,—that of Mr. John M'Arann, lies in Fifth and Sixth-streets, from Schuylkill, and on Arch and Filbert streets, and is styled the *Philadelphia Botanic Garden.*

On this now truly rural and ornate ground, there was not in 1821, a tree nor plant, except a few Lombardy poplars, which have been properly extirpated; and the surface, now so well graduated, was broken and extremely uneven, and required severe labor of the hand and the horse, to bring it into any regularity. The present proprietor employed two years and incurred great expense in preparing it to be a place of public resort. He has converted it into an elegant garden and a richly stocked nursery, with a spacious hotel and long green-houses, provided with all the luxuries suitable for such establishments. Taste, liberality and order seem to reign throughout; the rarest plants and most splendid bouquets may be procured there at any moment.

Mr. M'Arann served a long apprenticeship in one of the first gardens in Europe, and after his emigration to this country, lived for eight years, as principal gardener, at the Woodlands, with the late William Hamilton, Esq., and then superintended the improvements and green-houses at Lemon Hill, the well known seat of Henry Pratt, Esq. Mr. Hamilton's treasures of the choicest exotic and native plants exceeded nine thousand. Those of Mr. Pratt have long been the admiration of all the strangers of taste and the florists, who visit Philadelphia. Mr. M'Arann is not less zealous than he is experienced and accomplished as a horticulturist. Such enterprise, merit, and collections, from which our city derives embellishment and other advantage, deserve to be thus publickly noticed, and to be generally encouraged.

☞ The Agricultural Society of South Carolina has awarded a premium for the best specimen of silk made in that state, to the Miss Waties of Stateburg. We have a specimen of this silk in our office, and have heretofore noticed it. It is worthy of the premium of the S. C. Society, and we doubt not would have taken the government premium even of France.

A newly commissioned American magistrate, says an English paper, sent the following note to a bookseller:—"Sir, please send me all the *ax* of the Legislature that belongs to *Gustis of the Pease,* as I am now one."

Latest Foreign News.

By the Silas Richards, at New York, intelligence is received from England to the 24th May.

Although the King's health continued to improve, no confident hopes were entertained of his recovery. We find that at the latest date two physicians were in attendance.

Changes in the French Ministry.—The next most important intelligence by this arrival, is the partial changes which have taken place in the French Ministry. M. Chantelauze, First President of the Tribunal of Grenoble, is appointed Keeper of the Seals, in the place of M. Courvoisier, resigned; M. de Montbel, Minister of Finance, in the place of Count Chebrol, also resigned; and lastly, Count Peyronnet, who was Keeper of the Seals under the Villele Administration, Minister of the Interior, or the Home Department.

Our verbal intelligence by the last arrival from France, was rather favorable to the Ministry: that is, there was a pretty general impression among the most intelligent observers, that the Ministry would carry a majority of the Deputies at the ensuing elections. But the changes we are now announcing, indicate any thing but confidence or stability, on the part of the Cabinet. Of all men in power, Polignac is the most odious to a majority of the French people. And so far from any concessions to the people on the part of the King, these changes are intended rather to strengthen the hands of his first Minister. Both the new Ministers, says the Courier, "are Ultra-Royalists, and both are obnoxious to the liberals, especially M. de Peyronnet, who for a number of years, has been one of the most forcible speakers against that party in the lower House."

Spain and Portugal.—It is announced from Madrid, (May 10,) that Don Miguel has at length lost the support of the Spanish Cabinet. Indeed, if the reports circulated are to be believed, "the question of overturning the Usurper has been already discussed between the British Ministry and our ambassador at London. It is said even that this question would have been treated in a serious manner, if there had been any certainty that the Emperor of Brazil was disposed to revoke the charter, and to establish the young Queen Donna Maria with a Regency governing according to the ancient laws, without any other modifications but the obligation of calling together the Cortes of Lamego every three years, and to raise no taxes but such as should be voted by them."

Private letters from Lisbon of May 3, state that affairs proceed from bad to worse in that distracted country; and, amongst the evils that press on the government of Don Miguel, the state of utter exhaustion of the Treasury, and the mutinous spirit of the troops, and their insubordination, stand foremost.—Every thing tends to present the prospect of an inevitably approaching and terrible storm in its effect. An attempt to search some soldiers of the 7th Regiment, to seize some proclamations issued by the Terceira Regency, was resisted and a bloody fray ensued, in which several were killed on both sides, and many wounded

English Markets.

London, May 21.

Turpentine.—The two cargoes lately arrived have been sold at about 12s.

Cotton.—The Cotton Market is firm as to prices, but the sales are inconsiderable: they consist of 150 Bengal 4¼d a 4 3-8; 150 Surat 5d a 5 1-8d; 30 Pernams 8 1-8d; 150 West India 6¾d a 7¼d. This day, at public sales, 2,317 bales Surat Cotton were brought forward: the whole were ord. to middling, chiefly the latter; the few ord. were not sold; above 2,000 mid. sold 4¼d a 4⅜d. being within 1-8d of the highest price lately obtained in this market. The accounts from Liverpool state a heavy trade, and prices again 1-8d lower.

Rice.—There are few purchases of Rice to report; 600 bags Java were offered at public sale on Tuesday, but were all taken in 8s. a 8s. 6d. By public sale this day 2,871 bags East India Rice, nearly the whole sold: good Bengal 11s. 6d. a 12s.

Tobacco.—There are no sales of Tobacco to report.

Tar.—Several parcels of the late arrivals of Stockholm tar, have been sold from 15s. down to 14s. 3d.

Hops.—Hops have advanced 10s. a 20s. from the late lowest point of the market. The accounts from the Hop districts still state an increase of fly; the plant is, however, vigorous and healthy.

Liverpool, May, 22.

Cotton.—Our Cotton market has been dull this week, owing to a limited demand from the trade and large arrivals, which amount to 39,213 bags. The prices of American descriptions have declined fully 1-8d. per lb. from our last quotations, but in other descriptions we make no alteration. The sales amount to 10,110 bags, among which are 3500 Bowed at 6¼d to 7 1-8d, chiefly at 6 7-8d to 7d for fair and good fair; 14,000 Orleans at 6 3-8d to 8½d, chiefly at 7d to 7¼d for fair and good fair: 1830 Alabama and Mobile at 6¼d to 7 1-8d; 190 Sea Island at 13¼d to 16d. 40 Stained do. at 8d to 9d; 950 Pernambuco at 7¾d to 8½d; 1080 Maranham at 7½d to 7 7-8d, (15 at 8 1-8d;) 880 Bahia at 7½d to 7¾d. About 600 American have been taken on speculation.

Our market for Tobacco remains in a dull state, the demand being still nearly suspended. Nothing worthy of notice has been done in East India or Carolina Rice. Our Corn market has continued steady, and we have had large arrivals of Foreign Wheat and Flour, of the latter to the extent of 35,000 brls. Foreign Wheat finds buyers at full prices, equivalent to those of our growth, but American Flour has declined 1s per brl. Good fresh Oats have been in demand at an improvement of 1d per 45 lbs. Nothing done in Cloverseed, Flaxseed or Linseed. Some parcels of Quercitron Bark having recently changed hands at 13s. there is none now offering here below 14s per cwt. We have heard of no sales in Tar or Turpentine

Prices Current in Boston, July 2.

Apples, best, bbl. .400 a 5.00 *Beans*, white, bushel. .87 a 1.12. *Beef*, mess, bbl. 9.00 a 9.25; cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, .6 a .8; skimmed milk, 2. a .3. *Flour*, Baltimore Howard-st. 5.37 a 5.50; Genesee, 5.25 a 5.87; Rye, best, 3.50 a 3.87. *Grain*, Corn, bu. .46 a 55; Rye, .65 a .67; Barley .67; Oats .37 a 42. *Hogs'-Lard*, 1st sort, new, lb. 9. a 10.00. *Pork*, clear, bbl. 16 a 17; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 1.75 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, —— Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .40 a .50; do. do unwashed, .25 a .35; do. three-fourths, washed, .35 a .40, do. half blood, .33 a .35; do. quarter, washed, .33 a .35; Native, washed .25 a .38; Pulled, Lambs', 1st sort, .40 a 45; do. 2d sort, .30 a .35; do. Spinning, 1st sort, 33 a .35.

Prices Current in New York, July 3.

Bees-wax, yellow .21 a 23. *Cotton*, New Orleans .10½ a .12½; Upland, .9¾ a .11½; Alabama, 10 a .12. *Cotton Bagging*, Hemp, yd. .18 a .20, Flax .12 a .17. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a ——; Canal 5.12½ a 5.37½; Balt. Howard st. 5.12½ a ——; Richmond city mills, —— country, 4.75 a 4.87½; Alexand'a, 4.75 a 5. Fredericksburg 4.75 a —— Petersburg, 4.75 a 4.87½; Rye Flour, 3.37½ a 3.50; Indian Meal, per bbl. 2.50 a —— per hd 12.25 a 12.50. *Grain*, Wheat, North, 1.06 a ——; Vir. — a 90; Rye, North, 65 a 66; Corn, Yel. Nor. .53 a 54; Barley, — a — Oats, South and North, .32 a .38; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8 00. *Provisions*, Beef, mess 9.50 a 10.00; prime a 6.25 a 6.75; cargo 5.— a —— Butter, N. York, 12½ a 15; shipping, 6 a 11; Lard, .8 a .8½; Pork, mess bbl. 13.50 a 14.12½; prime 9.75 a 10.12½; cargo 5.

Prices Current in Charleston, June 28.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 25. Upland, inferior and common .9 a .10, fair to good, .10 a 10½, prime to choice, .10½ a 11½. *Rice*, prime, $2¼ a .2½, inferior to good, do. $1.87½ a .2.12½. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5½ a .5¾. *Corn*, North Carolina, .46 a —.; Maryland, .47 a 48.. *Oats*, .38 a .40; Peas, 65, sales. *Hay*, prime Northern, .87½ a $1. *Whiskey*, Philadelphia and Baltimore, hhds .24 a 24½; bbls. 25½ a 26; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish 20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .6; Mess, 10; New York Mess, .9 a .10, Prime, .6 a 6½; Cargo, .5½, nominal. *Pork*, Mess. .13½ a 14; Prime, .— a .11, scarce. *Bacon*, .7 a .— cents; Hams, .8½ a 9; Lard, 8 a 8½. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

AGENCIES.

The Subscriber is agent for the following persons, and all orders directed to him, or left at his Agricultural Warehouse and Seed Store, No. 36, West Pratt street, Baltimore, will be promptly attended to.

Viz. for Messrs. Walker and Hammond's Iron Foundry, where all kinds of *Castings* can be had, equal to any made in this country, and on reasonable terms.

Also, for Messrs. Peirson and Walker, manufacturers of all kinds of *Spindles* for factory use, these will be warranted equal or superior to any ever before made in or imported to this country.

Likewise, agent for the Messrs Robbins's improved *Corn Planter* for planting or sowing all kinds of seeds; can furnish the machines or dispose of the patent right. All communications by mail must be post paid.

Also, general agent for Messrs. D. & C Landreth's Seed and Horticultural Establishment at Philadelphia.

Also, a general assortment of Agricultural Implements on hand as usual, &c. J. S. EASTMAN.

AGRICULTURAL IMPLEMENTS.

SINCLAIR & MOORE are now manufacturing and supplying their Improved *Wheat Fans*, which the farmers will find valuable, both in point of labour saving and putting their grain in order to command a good price in the market.

Warren's *Patent Threshing Machine*, adapted to one or two horse power, capable of getting out from 75 to 100 bushels of wheat per day, together with the usual stock of implements of various kinds.

On sale *Turnip Seed* of superior quality, growth of 1830, raised at their horticultural establishment. Also *Seed Buckwheat.* (A. G. C.)

BEAUTIES AND DEFECTS OF THE HORSE.

CARTER & HENDEE, Boston, have just published "*Beauties and Defects in the Figure of the Horse*, comparatively delineated in a series of elegant engravings;" accompanied with accurate explanations of the points and character of that most useful and noble animal.—*For sale at the office of the Turf Register*, price $1 75.

DURHAM SHORT-HORN COWS FOR SALE.

Two fine improved Durham short-horn Cows, about five years old, will be sold cheap. They both took premiums, (one the first, and the other the second,) at the exhibition of the Pennsylvania Agricultural Society in 1825; and one took the premium at the Maryland Agricultural Society exhibition in 1826—both bred by Col. J. H. Powell. Apply to

GIDEON B. SMITH,
Office of the American Farmer, Baltimore, Md.

MACDUFF,

For Sale,—Price $300.

He is a full bred Durham short-horned bull, bred by Mr. Powell of Philadelphia: red and white, calved in June, 1827. *Dam* Annabella, sold at the auction of Mr. Powell's cattle on 16th June, to Mr. Freeman of Baltimore for $310.--*Sire*, Mr. Powell's celebrated Bull *Malcolm.*

The stock from Macduff has proved good, the bull may be seen on the farm of the subscriber near Newark, New Jersey. Letters directed to him, 27 Nassau street, New York, will be attended to. A. DEY.

New York, June 22, 1830.

ALMANAC.

1830. July.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 10	4	39	7	21	14	42	10	16
Sunday,...... 11	4	40	7	20	14	40	10	51
Monday,..... 12	4	41	7	19	14	38	11	35
Tuesday,.... 13	4	41	7	19	14	38	morn.	
Wednesday, 14	4	42	7	18	14	36	0	15
Thursday,... 15	4	42	7	18	14	36	0	52
Friday,....... 16	4	43	7	17	14	34	1	35

Moon—Last quarter, 12th, 9h. 25m. Afternoon.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKETS.—There is very little Howard street flour coming in, or on hand, and as little demand. A few sales of small lots have been made for eastern markets at $5. There is no change in the prices of wheat,—small lots of new white continue to arrive and sell at our quotations; but the receipts are quite limited. A small advance will be noticed in beef; but to command our highest rate, it must "cut three inches on the rib"

TOBACCO.--Seconds, as in quality, 3.50 a 6.00; do. ground leaf, 6.00 a 10.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.50; fine red, 6.50 a 9.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 10.00 a 16.00; yellow, 14 00 a 18.00.—Fine yellow, 20.00 a 27.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a 28 00—St. Domingo, 8.00 a 15.00. The inspections of the week are 343 hhds Maryland, 49 hhds. Kentucky; 47 hhds. Ohio; and 6 hhds. Virginia; total 445.

FLOUR—best white wheat family, $5 50 *a* 6.00—super. Howard-street 5.00—-city mills, 4.62½——Susquehanna, ——; CORN MEAL, bbl. 2.25——GRAIN; best red wheat, new 95; best white do. new 1.02 *a* 1.05; Maryland red 80 *a* 87½—CORN, white, .47 *a* .——; yellow .47 *a* .——RYE, .50 *a*——OATS, .33 *a* .—— BEANS, .90 *a* 1.00-PEAS, .40 *a* 50-CLOVER SEED, 3.75 *a* 4. TIMOTHY, 1.75 *a* 2.25—ORCHARD GRASS, 1.50 *a* 1.75—Herd's, .75 *a* 1.25—Lucerne 30 *a* 37½ lb.—BARLEY,-FLAXSEED, 80 *a* 87½--COTTON, Vir. 9½ *a* 10½ Lou. 11 *a* 12 —Alab. 9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .22 *a* 22½; in bbls 23 *a* 24—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $210 *a* 212; Country, dew-rotted, 5. 5½c. lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. .4 00 *a* .4.25 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.50 *a* ——BACON, hams, Balt. cured, .9½ *a* .10—-Feathers, .32 *a* 33—Plaster Paris, cargo price per ton, 3 81 *a* 3.87 ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.75 *a* 5.25—Pine Wood, by the vessel load, 1.87½. Oak, 2.75 *a* 3.—Hickory, $4.00.

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AGRICULTURE.

(From Lorain's Husbandry.)

A proper and an improper cultivation contrasted. The speargrasses let in weeds. Red clover smothers them. Small grain, sown in the spring, favours the destruction of weeds, more than grain sown in the fall. Observations on the lenient properties of plants. The grasses are far cheaper and more enriching than the cultivated crops generally grown and turned under for manure. The application of fresh dung advocated. It does not, as we have been told, "burst the vessels of most valuable plants." Neither does it "produce in grain crops, smut, blight, and mildew;" nor do "myriads of mice and moles infest potato crops," in consequence of the application of "strawy muck" as manure for this plant.

Judge Peters's practice, in his fallow crops of maize, grown in 1808, and the cultivation of the crops following it, seem to afford subjects for interesting remarks; particularly as the management of the corn crop, (except some extra labour done with a view to destroy garlic,) is the same as that pursued by many farmers, who turn up a grass lay in the fall, and plough it again in the spring previously to planting, which, as this gentleman very justly remarks when describing the management of his corn crop grown in the following year, "turns up the sod with all its pests and adhesions."

Of the crops now to be considered he says, "I have now a fine field of wheat. Two years ago it was so infested with garlic, that the *hay*, in winter, was unfit for my cows; as it gave the milk a most disgusting taste. In 1807, I gave it a fall ploughing; and in the spring of 1808 I ploughed it again, as early as the frost permitted. At the usual time I planted Indian corn." "I cut off the cornstalks, fall ploughed, and limed lightly. Wishing to cover my fallow in the spring, I procured Albany peas. I was obliged to send to New York for my peas, which occasioned delay; and, although I ploughed early, I sowed a month too late." "They came up evenly, and looked remarkably well, till the pods appeared, when heavy rains laid them, and I lost my crop of peas; but did not lose the benefit of their cover. Two acres of the same field were highly dunged, and planted with potatoes; I sowed wheat in the potato ground, ten days before my pea fallow was ready. A remarkable dry season prevented my sowing in the time I wished. During the drought, I gave an extraordinary ploughing, to cover and protect a moderate dressing of well rotted dung, on the pea fallow.* About the middle of October, I harrowed in my wheat, sowed on it timothy seed, and rolled it in."

"The garlic is apparently destroyed in the whole field. I could, in the winter, have collected many bushels of dead bulbs of garlic; which had been exposed by the harrow after the fall ploughing. In this way I have cleared many a field of garlic; but in three years (often in two) the seed, which had been lying torpid, vegetated, and produced a new crop of *pests*. I have a field adjoining, preparing for a similar course."†

The President's remarks on the small spot so often ploughed in his corn field of 1809, together with my observations thereon, are sufficient to explain the very bad consequences arising from "turning up the sod" in the spring, "with all its pests and adhesions." It, however, seems strange, that in 1808, this gentleman should do this, although he tells us, in 1809, "this I *never* do." He likewise enumerates the advantages derived from letting the sod remain undisturbed until the corn be ploughed.

The field now under consideration was ploughed five times, and very frequently harrowed before the peas were sown. It is not said how often it was rolled, or how often it was ploughed, in the cultivation of the fallow crops. Enough, however, is said, to determine that the amount of useless and very injurious labour was very great: whereas one ploughing, with the remainder done by the hoe and tined harrow, would have executed the whole much better, and with very little comparative expense, if the grounds had been properly ordered.

The liming provided food for the pea crop; but this was done at the expense of the animal and vegetable matter found in the soil. The well rotted dung afforded nutriment for the wheat, but half the original quantity would have done this, if it had been applied previously to fermentation. However, as dung, (whether it be or be not decomposed,) introduces weeds when applied for small grain, the original quantity ought to have been applied for the corn crop, previously to its being uselessly wasted by fermentation: especially as this arrangement would have more than doubled the quantity of corn, and also furnished sufficient nutriment for the wheat crop. If the garlic and other "pests," together with the roots and tops of the grasses, be kept under, and properly used within the soil, in place of being uselessly destroyed on the surface of it, the ground would have been enriched for the growth of the grasses following the cultivated crops; also improved for the growth of a succeeding round of crops; and the cost of the lime, as well as the extra labour, might have been saved, with one year's rent of the land.

If the pea crop had not failed, the increased product of the corn would have been more valuable than it. As from seventy-five to eighty bushels of shelled corn per acre, is but a moderate crop of that grain, when as much fresh unfermented dung is applied to the acre, as will, after it has been rotted, be sufficient to manure an acre for wheat. Now we know, that the "general rate of crops" of maize grown without dung, (as was the President's, and as is the too general practice,) does not under the favourable circumstances of a grass lay, average more than thirty bushels of shelled corn to the acre. That this gentleman has not been accustomed to get much, if any more, than this, when the crop has derived no advantage from dung, may be clearly seen in a note made by him in the second volume of the Memoirs, page 203.

Wheat sown in the fall continues too long on the ground to favour the destruction of garlic, or other hardy weeds. Therefore spring wheat, barley, or oats, should in this case be sown.

The superficial cultivation for the spring crop, will have a powerfully destructive effect on such weeds as may happen to vegetate in the fall, winter or spring, before the small grain is sown. Barley is the best crop when hardy weeds are to be subdued. It comes off early, and this gives the clover a better chance to outgrow, and overtop the weeds. "Timothy" and all the speargrasses let in weeds. Red clover should be sown, when the destruction of them is a material object. The close shade formed by that plant, when a sufficiency of seed is sown, smothers many weeds; and prevents many that are not destroyed from perfecting their seed. It is best to mow the clover, as the scythe when well applied destroys many weeds, when this grass is mowed in proper time. The longer it stands, the greater will be the number of the seeds of the weeds spread over the soil. If the clover must be pastured, great care should be taken to preserve a sufficiency of the grass, to keep the grounds always closely covered and shaded by it. Many plain, but good practical farmers, (who live where a high price for hay does not tempt them to impoverish their farms by the sale of it,) are in the excellent practice of keeping their cattle in pastures, where the clover is nearly as high as their knees; here the cattle soon fill themselves, and retire to rest in the shade; such farmers always thrive. The covering of the clover skreens the soil, and the enriching matter deposited on it by the atmosphere, and also the leaves, &c. dropped by the growing plants, from the injurious action of the sun and air; it also smothers many weeds. When this vegetation is ploughed under the ground, either for fallow crops, or for crops of small grain, the product is generally greatly increased by this very judicious mode of management. If, however, these farmers would not turn up the sod, either in the cultivation of the fallow crop, or in the cultivation for the small grain following it, they would find that both these crops did not exhaust the soil more, if as much, as a single crop of corn, or of any other strong and vigorous plant cultivated in the usual way: also, that the product of both crops would be much greater, than if the small grain had followed the fallow crop in the usual way, and that weeds would be far better subdued.

A spring crop of small grain is vastly preferable to a crop of the same description sown in the fall, when the destruction of weeds is a material object, and should always be employed for that purpose. I have not, however, found garlic difficult to be subdued by the first round of crops; so far, that neither the flower from the grain, nor the milk and butter from the cows, were perceptibly injured by it; when wheat sown in the fall followed the fallow crop, and a sufficiency of red clover seed was sown on it, even when the grounds were cultivated in the usual way. It has, however, been my practice never to spare cultivation, when it was believed, that the fallow crop would be benefited by it, and to use the hand hoe freely, where the plough and harrow could not disturb the weeds. Also, not to suffer my grounds to continue longer than three years in grass. It is true the weeds are not generally as effectually subdued, as we might wish them to be, by the first round of crops, be the cultivation what it may. Some of them are very hardy, and the seeds have been accumulating for ages, with but too little attention given to the destruction of them. Still every round of crops lessens their number. Why then should farmers complain? especially as while they continue to annoy us, (more than we would wish,) valuable nutriment may be readily obtained from them, for the growth of the plants, that are justly much more highly esteemed by us.

Notwithstanding the President, and too many other gentlemen, say, it is probable, that "peas give to the soil a balance beyond their receipts from it;" practice in their gardens (if no where else) ought to have taught them better than this. Many plants are called ameliorating, but every plant exhausts the soil if its product be removed from it. Some plants require more nutriment from the ground than others; those that require the least from it, and obtain the most from the atmosphere, among which peas are properly enumerated, may be justly called lenient plants; this term is descriptive of the properties of the plant, and expressive of what really takes place in the soil. But to ameliorate is to make better, and the soil, in place of being enriched by any plant that is grown on it, is made poorer, if the product be removed. If, however, it be applied as manure, every plant, not excepting the President's "pests," becomes ameliorating. Still it is reasonable to believe, that those which shade the soil closely, or draw the greatest proportion of their support from the atmosphere, or from below the range of the roots of plants in general, or that will live and prosper on the least nutriment, will be the most enriching to the soil on which they are grown, when applied as manure for it: provided, they are as well stored with nutritive matter, as plants that are more exhausting than they are. As red clover seems to possess all these valuable properties in a greater degree than any other plant generally cultivated by us; and luxuriant crops of this grass are readily excited, by the proper use of gypsum with but little expense, almost any soil may be soon enriched or ameliorated by this invaluable plant.

It is evident Mr. Peters acted as if he could not depend either on the lime, or the "ameliorating" properties of the peas, to furnish sufficient nutriment for the wheat; he applied dung for that crop, and in doing this, he acted wisely. For much of the animal and vegetable matter had been destroyed by the very injudicious cultivation of the corn crop, and the lime decomposed a great part of the remainder for the peas.

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* This should not be called an extra ploughing, as the dung could not have been covered without it.

† See Mem. Philad. Agr. Soc. vol. ii. pages 126, 127, 128.

This gentleman's course of cultivated crops procrastinated the sowing of grass seeds too long, unless the soil was much richer than it seems to have been; the sooner the grass seeds are sown, the sooner the grounds are filled with the roots of the grasses, than which nothing (except farm yard or other rich manure) seems so effectually to counteract the exhausting effects of cultivated crops: especially, when the succeeding cultivation of the grounds be calculated to save the nutriment arising from the roots of the grass from useless waste. When the roots alone are used for manure, they cost neither labour nor money, and when the tops are applied with the roots, the cost is much less than that of any other manure equally enriching. Green crops grown for the express purpose of manure, are considered cheaper by far, than the same quantity of nutriment for plants that could be obtained in any other way. How much cheaper must be the tops and roots of the grasses, which have cost no labour except sowing the seed, and it would seem that this labour, as well as the cost of the seed, has been amply remunerated before the grasses are applied for manure. There is no question with me that, when the very superior value of the roots of the grasses are estimated, the manure from a crop of grass ploughed under the soil, far exceeds in value that obtained from any other green crop generally cultivated for that purpose.

Some remarks on what Judge Peters says, of the destruction of the May weed is considered useful, especially as the subject seems to be introduced for the express purpose of frightening farmers, by a long string of "terrific" words, from the practice of using fresh muck, even if "necessity" should urge them to do it.

This gentleman says, in the midst of his observations on the destructive properties of "hot muck," "three years ago, I used, from necessity, unrotted litter for potatoes. I was *punished* for my *aberration* by a *most terrific* and *profuse* growth of the May weed or daisy; the seeds whereof had been among the muck. I am *scourged* by the *vile* and exhausting *pest* like a *slave flagellated* by his *driver*. I *revolt;* and my *hatred* is increased by every repetition of the *lash*. This season I *sacrificed* a fine sod of timothy and clover, *infested* by the daisy, which I have ploughed under with another potato crop; with this I shall defeat the foe, attacked before becoming a veteran."*

The muck could not have generated the seeds of the May weed; they must have been mixed with the food or litter provided for the cattle. Of consequence were the product of the President's farm, which (notwithstanding he tells us that the seeds of weeds are destroyed by rotting the dung) seems to be overrun by various "vile exhausting pests;" or more properly speaking, by plants which are the companions of poverty and a bad system of cultivation. What I have already quoted from his communications in the second and third volume of the Memoirs, determines that four of his fields were overrun with the "pests." These, if my memory be correct, are all he speaks of cultivating. Whether the remainder of his grounds were or were not in the same condition is unknown to me. It, however, seems probable that as they were subjected to the same management there was but little difference in the whole. Now if decomposing the dung kills the seeds of the "pests," how does it happen that the President's farm (after his practice of near half a century,) seems to be overrun with weeds, when we do not hear the "hot muck farmers" complaining of "pests;" although but few if any of them have resided any thing like so long on one farm as he has?

But what puzzles me most, is how it was possible for a fine sod of timothy and clover, and "a most *terrific* and profuse growth of the May weed," both to exist together on the same soil, for the one seems to be as much opposed to the other as light is to darkness.

I have before assigned reasons why potatoes are one of the worst fallow crops that can be grown with a view to the destruction of weeds, and as the President says, "I cannot subdue" "this vile exhausting pest" without great exertions; and even with them not entirely, unless I hand weed;"* it seems strange that he should expect to defeat this "terrific foe" "by turning under the sod with a potato crop." The May weed blossoms early, and the plants that sprang up among the small grain which followed the first potato crop, no question spread a profuse quantity of the seed of this "pest" over the timothy and clover lay. When this sod was ploughed under with "another potato crop," and the plants earthed up, these seed were buried under the ridges beyond the power of vegetation. There they lay torpid until the crop, was gathered; and were then spread abroad, as if sown to produce another crop of "pests."

If a proper fallow crop had been selected, and superficially cultivated, all the seeds of the May weed that were buried beyond the power of vegetation by turning up the sod, would have remained undisturbed; and of course torpid. Those lying near enough to the surface of the soil to grow, would not have been turned deeper under it; and after they had vegetated would have been destroyed by the cultivation of the fallow crop, and by the superficial preparation of the soil, for the small grain following it.

Mr. Peters says, that "the violent and outrageous operations of fresh and hot muck, (acting as well on the *pest* it brings along with it, as on the crop it is intended to stimulate and nourish,) are as *ungovernable*, and often as *morbid, exhausting* and *mischievous* as the *unrestrained*, though temporarily *potent exertions* of one making *infuriated* and *desultory efforts*, under *paroxysms* of a *fever*. Sometimes its *fury* is spent on itself."† Also, that "the *violent* operations of hot muck, *burst* the *vessels* of most valuable plants," and "produce in grain crops, smut, blight, and mildew.‡ Likewise that "when the superabundant *azote*, and *poisonous* qualities of muck escape, the residuum is more than worth the whole mass." And that "fermenting muck infects the ground with a *durably deleterious taint*, instead of fertilizing it with wholesome capacities."§ Also that "a strawy muck is frequently applied for potato crops, and the *myriads* of mice and moles infesting them are fatally known."‖

Here I beg leave to observe, that neither a long string of technical terms, nor words put together in any way, can alter facts, or change the nature of things. This gentleman must have known before he put these words together, that we are not bound to believe any thing which is not supported by sufficient evidence; especially if it seems to be opposed to nature, reason and common sense. Therefore he ought to have informed us how we might observe, that the operations of fresh muck were "*violent* and *outrageous*," acting as well on the *pests* it brings along with it, as on the crop it is intended to stimulate and nourish." Also, how we may discover that these "operations of fresh muck" are as "*ungovernable, morbid, exhausting* and *mischievous* as the *unrestrained*, though *temporarily potent exertions* of one making *infuriated* and *desultory efforts* under the *paroxysms* of a *fever*." And how it happens that "sometimes its *fury* is spent on itself." He ought likewise to have informed us, whether its action on the *pests* "stimulates and nourishes" them, while it "poisons" and spreads destruction in the crop, for this seems to be implied. Also, how it happens that fresh muck, (which must contain all the enriching properties of the dung,) exhausts the land: especially when all its nutritive contents seem to be secured by ploughing it under the soil. Likewise, how we may discover the "*azote* and *poisonous* qualities of muck, that *infects* the ground with a durably *deleterious* taint, instead of fertilizing it with wholesome capacities." For although but few if any of the "fresh and hot muck farmers," claim the experience of so long a practice as does the President, it would seem that, if any of those evils actually existed, their practice must have been sufficient to discover at least some appearance of them.

Mr. M'Mahon, in his book on Gardening, recommends forming hot beds with fresh dung, from two to four feet deep; but says nothing of the "bursting of the vessels," even of the most delicate plants. When speaking of the application of fresh dung, for the growth of plants in the usual way, he tells us it becomes a dryish wisp, incapable of affording nourishment to plants.

Both these gentlemen claim long practical information. Still as they are immediately opposed to each other, both cannot be right. But as it commonly happens, the truth lies between those wide extremes. Fresh dung applied in the usual way, for the growth of plants, does not become a dryish wisp; on the contrary it is gradually decomposed, and affords double the quantity of nutriment for plants, that is obtained from it, after it has been rotted or decomposed. When the litter, that may be readily obtained from a well managed farm, is carefully and properly used, the quantity of manure made by this very profitable practice is greatly increased. Fresh dung is, however, so far from acting violently, or bursting the vessels of the most delicate plants, that it acts quite as mildly as decomposed dung, whether it be or be not incorporated with litter. The quantity, in either case, may be readily so ordered, that vegetation will not be injured by an excess of nutriment or heat.

Still, if I were to grow a wager crop of maize, or any other plant that is not readily injured by a powerful application of manure, dung in a very high state of fermentation, and partially decomposed, would be greatly preferred by me. It would act more powerfully than fresh muck in the beginning, and enough of it would perfect the crop. This is, however, no reason why a farmer, (who ought to have a succession of crops and the improvement of his soil in view,) should adopt this wasteful practice, or that of decomposing his dung, until the greater part of its nutritive properties is scattered in the air.

If the cause of the "mildew" has been pointed out, it seems not to be known, or distinguished, from the many mistaken causes, which are said to produce this destructive effect. It is, however, evident that the cause, (be it what it may,) is vastly more prevalent some years than it is in others. It would also seem that some situations are more subject to this disease than others. Perhaps none so much as grounds that lie low; especially if rivers or creeks pass by or near to them. Still the effects seem to be the same, whether fresh or decomposed dung be used. Also, when enriching manure of no kind has been applied.

"Smut" seems to prevail most in our back settlements, where the country is but partially opened or cleared from its wood: also, in climates where an unusual portion of moisture prevails. It does not, however, appear to be increased either by the application of fresh or decomposed dung, or by the soil being rich or poor.

Different diseases are termed "blights," therefore I do not know the one to which the President alludes; but so far as my observation extends, no disease to which grain crops are subject seems to be even augmented by the application of either fresh or decomposed dung, or enriching manure of any description.

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* See Mem. Philad. Agr. Soc. vol. iii. page 234.

* See Mem. Philad. Agr. Soc. vol. iii. page 234.

† See Mem. Philad. Agr. Soc. vol. iii. pages 221 and 222.

‡ Idem, page 223. § Idem, pages 231 and 233.

‖ Idem, page 222.

If myriads of mice and moles infest potato crops, when strawy muck is used, it seems strange that farmers should generally apply this kind of manure for potatoes. It is also observable that neither the rats nor the mice which infest our buildings, nor any of the quadrupeds which pillage our fields, seem to be fond of this root. However, as moles and ground mice will feed on it, where nothing that suits them better is to be had, there can be but little doubt that, (whether fresh or decomposed dung be applied,) the injury done by them will be "fatally known," if they should ever happen to exist in such large numbers as the President mentions.

In fact, this gentleman's assertions seem to have been made without considering either practical or chemical facts. He says that "when the superabundant *azote* and *poisonous* qualities of the muck escape, the residuum is more than worth the whole mass." The "poisonous qualities," like "infuriated," "unrestrained," &c. are, (when used to explain the properties of dung.) vague expressions; therefore, what is meant by them cannot be certainly understood. It is, however, otherwise with "azote," and of this Sir H. Davy certainly did not find any in dung. In the detail of his experiments on "hot fermenting manure, consisting principally of litter and dung of cattle," he says he found "some azote, probably no more than existed in the common air in the receiver." This gentleman also wisely remarks, that "the doctrine of the proper application of manures from organized substances, offers an illustration of an important part of the economy of nature, and the happy order in which it is arranged."

"The death and decay of animal substances tend to resolve organized forms into chemical constituents; and the pernicious effluvia disengaged in the process seem to point out the propriety of burying them in the soil, where they are fitted to become the food of vegetables. The fermentation and putrefaction of organized substances in the free atmosphere, are noxious processes; beneath the surface of the ground they are salutary operations. In this case the food of plants is prepared where it can be used; and that which would offend the senses and injure the health, if exposed, is converted by gradual processes into forms of beauty and usefulness; the fœtid gas is rendered a constituent of the aroma of the flower, and what might be poison, becomes nourishment to animals and to man."*

But Mr. Peters's practice is immediately opposed to this very rational theory; he says, "the dreams or the labours of alchemists certainly never realized, if they have imagined, so much treasure by transmutation, as well managed stercoraries are capable of producing. But removing from them prematurely the foundation of their utility, is at once blowing out the furnace."†

Attaching so much consequence to this destructive furnace, seems to be transferring the dreams or the labours of alchemists to the stercorary, or dunghill. It, however, furnishes a very proper name for this consuming evaporator. It seems to be the principal cause why this gentleman is continually "scourged," "flagellated," "lashed," and "driven like a slave," by some "vile exhausting pest," for he purifies his dung in this furnace, from "the (supposed) superabundant azote and poisonous qualities of the muck," which "infect the ground with a durably deleterious taint, instead of fertilizing it with wholesome capacities." In doing of this the greater part of the nutriment contained in the manure, is destroyed before it is believed to be sufficiently refined: consequently, the soil is exhausted, by being robbed of at least one-half of the enriching matter contained in the dung. This, of course, produces "wholesome capacities" for the growth of such weeds as are the "companions of poverty;" for they are not routed out or opposed by plants that cannot exist or prosper on a poor soil. He says of garlic, "I always believed it to be a spontaneous native product, the companion, if not the offspring, of poverty;" and when speaking of the destruction of it, says, "my experience, for more than forty years, has convinced me that early ploughing in the spring, and most especially if succeeded by fall ploughing, is the remedy."* We also find that in 1807 and 1808 he was busily engaged in the destruction of garlic; and from that time until the third volume of the Memoirs is published, he is actively employed in the destruction of it and other "pests," notwithstanding he tells us that he had before "cleared many a field of garlic," but that in three years, (often in two,) the seed vegetated, and produced a new crop of "pests."† The seeds of weeds will vegetate, (especially in grounds that have been overrun with them,) unless the order of nature be altered to meet the inconsiderate wishes of man. If they, however, "produce a new crop of pests," to an extent that is materially injurious, it must proceed either from neglecting the cultivation of the grounds too long, or from a system of management that is better calculated to impoverish than enrich the soil. Now, certainly, rotting the dung before it is used, and exposing the animal and vegetable matter contained in the soil to useless waste, by an injudicious cultivation, is well calculated to produce this ruinous effect.

ROTATION OF CROPS.

Washington Co. Md. July 6th, 1830.

J. S. Skinner, Esq.

I was greatly pleased with the suggestions of the writer from Chester Co. (Pa.) in your last number on the subject of rotation of crops. I am convinced that his plan is the only just and true one for this meridian. It is evident that this individual relies much, on the management of stock, in drawing from the soil the golden returns, which sweeten the toils of the agriculturist. How many horned cattle has he? sheep and hogs? does he cultivate the roots? how much hay does he cut? how many bushels of wheat to the acre does he raise?

We are ruined in this portion of the state, notwithstanding the natural fertility of our soil by grasping after too much. We are ignorant of that hard lesson in human affairs, which should teach us to postpone present good to future advantage. We strive too much to raise wheat and corn, and neglect adding *spires* to our fields. Please request the Chester Co. farmer to give us further details of the economy of his farming. Yours, &c.

A Subscriber.

(From the Southern Agriculturist.)

ON THE PRESERVATION OF THE SWEET POTATO.

Hickory Hill, (*S. C.*) 17*th April*, 1830.

Dear Sir,—At the time you wrote for information on the subject of preserving the sweet potato from rot, I calculated that ere this, some one more adequate would have given you satisfactory information, or I would have attended immediately to your request.

I will now proceed to give you the plans pursued by me for years, which have so far enabled me to keep the sweet potato, from harvest until May and June, with a loss of *not more* than *one bushel per thousand*.

In the first place, I select an elevated place to plant; I prefer a sandy to any other soil, which produces well, when manured by stock; the reason I prefer an elevated situation for the potato, is, that it does not partake of an over abundance of sap, which I have observed in potatoes grown in bottom lands, (and particularly if the fall season be wet;) this sap, I am of opinion, is a cause, within itself, of so much rot in potatoes. The next object is to gather or house them before a hard frost, in the fall, for if allowed to stay in the field until after a heavy frost many of the top ends are liable to be frost bitten, which brings on a decay after banking, and the decay becomes contagious to a considerable part of the bank. In digging, the potatoes should not be thrown on each other, which is apt to bruise them, particularly when they are of a large size; those cut should be carefully assorted and used first, as they are apt to decay.

In moving potatoes from the field to the bank, care should be used to prevent bruising them; my plan is to load the wagon with baskets, and allow a sufficient number of strong hands to go with it to empty the potatoes on the bank with ease and care. When they are put in banks (40 or 50 baskets) if the weather is moderate, throw straw over them and let them stand to receive the benefit of the air for a day or two, this is of service to them. My mode of banking, is to throw a coat of pine straw over the potatoes first, over it lay pine bark, then corn or fennel stalks; bank lightly at first, leaving an air-hole at top; and, as the cold increases, increase the dirt in proportion, and if excessively cold, stop the air-hole at top, which should be re-opened as the weather becomes mild; the dirt I never take off after putting it on. If these simple ideas are of service to you, use them.

Beaufort.

LARGE OX.

The New York Daily Advertiser says, there has been exhibiting for a few days, on board a tow boat, at the foot of Vesey street, North river, an ox of extraordinary dimensions, raised near the village of Auburn, Cayuga county, New York. This animal is said to be the largest of his kind in America. His dimensions are 6 feet 6 inches in height—12 feet 6 inches in length—girth 11 feet, and weighs about 4000 pounds, and is really a curiosity. He is of such immense weight that his legs are scarcely able to support his body. The owners, we understand, offer him for sale.

HORTICULTURE.

(From the Southern Agriculturist.)

TEA.

On the Introduction of Tea into the Southern States, with a few observations on the Silk Worm: by Thomas Spalding.

Darien, (*Geo.*) *April* 9*th*, 1830.

Dear Sir,—I received the Agriculturist last night, and read the letter that you alluded to on the subject of tea, in Brazils; I had long since known that the late King John, of Portugal, had introduced a colony of Chinese into the Brazils, for the purpose of cultivating the tea-plant, and other things; and I had taken some pains to inquire when opportunity afforded me, whether the cultivation had extended beyond the little plantation originally introduced by the King, but could not learn that it had. The process described in your paper, is certainly very simple, and would not be attended with much expenditure of either labour or money; but, for my own part, I cannot conceive that the finest qualities of tea could be produced by that process—only remark how very slight the operation must be, between substances so light as tea-leaves, shaken between screens. We must remark that Imperial and Gunpowder Teas, are very compactly and neatly rolled together, which must have been accomplished by some very different process. In fact, there are long details upon the subject of tea, with a number of drawings, in Ackerman's Repository, from which we should be led to suppose, that the preparation of tea from the plant, to its boxing for market, must be a slow process, requiring much expenditure of manual labour. It is to be regretted, that some, among the many trading to Rio Janeiro, have not brought from thence a specimen of their home grown tea, by which we, ourselves, could at once judge of its comparative value with the teas of the East. As to the adaptation of the climate to the tea plant, there never has been any doubt upon the mind of any reflecting person; the plants growing upon Skidaway Island, in Governor Milledge's garden, (alluded to by your correspondent from St. Simons) I, myself, saw growing, for successive years, with great vigour, in a very open and exposed situation; and Mr. Young of Savannah, among his beautiful collection of other plants, has got the tea in all its varieties, growing in the open air; he has also the flowering olive, which we have understood, (with what truth I am not able to say,) is employed by the Chinese to flavour their finer teas. This flowering olive is of itself a pretty plant and the flowers quite fragrant. Mr. Young, among others with whom I have conversed, seems to consider this as an appendage to the finer qualities of tea. As it is twenty odd years, since I saw the tea growing in the open air in this country, I have of course, among the various agricultural subjects that passed through my mind, in these series of years, naturally revolved the idea of growing tea, but as naturally supposed, that tea, like silk, and coffee, and even sugar, would have passed from the east to the southern districts of Europe or America, under the enterprising governments that existed in Europe, soon after the discovery of the passage round the Cape of Good Hope, if there had not been some causes to prevent the extension of the culture, besides that of climate or soil.

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* See his Lec. on Agr. Chem. pages 308, 309.

† See Mem. of the Philad. Agr. Soc. vol. iii. p. 226.

* See Mem. of the Philad. Agr. Soc. vol. iii. p. 122.

† Idem, page 128.

Every nation in Europe has, in turn, been subjected to vexatious proceedings by the Chinese, and the China trade has at all times, up to the present hour, been a trade exhausting capital, and absorbing the specie mediums of the different countries that carried it on. There could not have been, therefore, any want of desire on the part of European nations, to find substitutes for one of the heaviest articles in this trade, if there had not been difficulties in the way, that do not probably present themselves to us, without some practical knowledge upon the subject.

Among the first impressions that I received upon reading the paper contained in the Agriculturist, was the exaggerated expectation of the writer as to the quantity and facility of gathering the leaf of the tea plant; in supposing that seven men would be sufficient to attend one hundred acres. I should be tempted to reverse the figures, and say to you, under my first impression, that it would possibly require almost one hundred men carefully to pick and well to prepare the leaves of seven acres. It is known to us, who are agriculturists, that the leaves of plants are as essential to them, as their roots, and if you wish the plant to be preserved in health and vigour, you must not rudely or roughly strip off the leaves from it, and in taking one set of leaves, you must not disturb the germs of others that may be nestling under them; there are few plants that exist, that will bear being stripped more than once per year, without drooping, and no doubt, in a very few years perishing; this is evidenced in the case of the mulberry tree, reared for the silk worm, and which, consequently, confines the growers of silk to a single hatching of the worms, in spite of the idle theories, which have been broached by inexperienced men, at different times upon the subject.

And if there is any truth in the various details that we have had upon tea formerly, the quality of the tea, within its general arrangement, depends very much upon the period of gathering the leaves; it must, therefore, be important, that there should be hands enough provided within a proper period, carefully to pick the leaves from the plants, to cure them, and box them; for we know by sad experience, that teas will not bear being exposed for any length of time to the open air, without losing that flavour and fragrance which lovers of tea consider necessary, and constituting its essential property.

My conclusion, then, upon all this, is, that tea is not one among the articles offered to the southern agriculturist, as a substitute to the many valuable objects, that are already within his range, and within his practical experience.

That if it had been so, it would have been introduced into Spain, when sugar and silk were introduced from the East. It would have been introduced into the Italian States, when silk was introduced by some one or other of the enlightened, though rival governments which occupied the North of Italy. It would have been introduced into France, by a Colbert, or some one or other of the ministers of Louis the XIVth, and his successors, who carried coffee from the East, to the American islands. The climate of all these countries were adapted to the growth of the tea-plant, for if America is ten degrees colder than Europe, that part of Asia in which China is situated, is almost ten degrees colder than America. I had somewhere read of frost having been seen at Macoa, below Canton, which I could scarcely believe, until it was confirmed to me by the late Dr. Baldwin, who had been induced, in his great love for botany and the natural sciences, to spend a winter in China, he answered me, he had seen a crust of ice formed upon water at Canton, in latitude 21°. China then, in the latitude of 29°, would probably be as cold as North Carolina, and colder than either South-Carolina or Georgia.

But if the cultivation of the tea-plant is no object, every day's experience convinces me, that silk will become a great object to the Southern states in the end. I find, that, although formerly I used to fail in attempting to multiply the black mulberry by cuttings, that the white mulberry grows with ease, if taken off the parent plant when the buds first swell, and then kept covered up in the earth until we are free from the apprehension of spring frosts, when the cuttings should be laid carefully in a trench, and well manured, with a single bud above the surface of the ground.

I noticed in one of your papers in the last Agriculturist, that the Chloride of lime is recommended for the purifying the apartments where the silk worms are kept; now you may remember, that in my letter upon the subject of silk, published by you long since, I stated the opinions of Dr. Anderson, of Madras, upon the importance of using lime[*] in all ablutions about your silk worms, and what was more extraordinary still, the benefits that he saw take place from sprinkling slaked lime over the worms that appeared to be diseased. I think, I added, in that communication, that I had been induced by something that I had read in an almanac or newspaper, in the year 1825, to try what effect lime would have upon the caterpillars that were then commencing their destructive operations upon my cotton; and to my utter amazement, I saw caterpillars the next day after the attempt, in the full exercise of all their destructive qualities, with their backs actually whitened with lime. I will, therefore, conclude with saying, that in all our efforts towards the rearing of silk, we are to find in lime, a remedy for the diseases to which the worm is incident, and a security to the health of those who may be in attendance on them.

I remain, Dear Sir, yours, &c.

T. Spalding.

The study of history makes men wise; poetry, witty; the mathematics, subtle; natural philosophy, deep; moral philosophy, grave; logic and rhetoric, able to contend.

GOOSEBERRIES.

J. S. Skinner, Esq. *Columbia, Pa. July 7th, 1830.*

Dear Sir,—In looking over the columns of the last number of the Farmer, a short notice of fine gooseberries attracted my attention,—the answer which you give as the cause of the scarcity of superior fruit of the gooseberry, I would, (with your permission,) say is not perfectly applicable, at least in my case, and I believe with most others. I have planted many varieties of the imported, and which were said to be very superior, and I have no doubt are so, in the moist and cool climate of England, but with me they have almost entirely failed, being annually coated with mildew or rust, both wood and fruit, notwithstanding all my care to prevent it,—I have planted them in every soil and exposure that I was capable of, and find them to succeed best on the north side of buildings, or board fences, in any situation where they are protected from the meridian sun, and by no means confined, but even here the mildew will find them out.

Mr. McKim would confer a favour on all lovers of gooseberries, (and I believe most people are fond of them,) by giving a statement through the Farmer, of the mode of treating this delicious fruit, situation, soil, &c. with the kinds he is cultivating, &c.

Respectfully yours, &c.

J. B. G.

HORTICULTURAL RARITIES.

At the exhibition on Tuesday evening, July 6, before the Horticultural society, in the city of New York, some exceedingly fine samples of fruit were displayed, with the usual abundance of choice and rare flowers: in particular, some fine Antwerp Raspberries, from Mrs. Winter, of Flushing; and a lot of gooseberries were presented by that lady, one dozen of which, on being carefully weighed, were found to equal 7 oz. 5 dwts. 7 grains, and a single one was selected which weighed ½ oz. 4 dwts. 17 grains.

Some rare flowers were received from Mr. William Prince: among them the *Bocconia Cordata, Passiflora Princeps,* 2 species of *Nuttalia, &c.* and a splendid collection, embracing more than 90 varieties of *Carnations.*

Mr. Floy offered a tasteful bouquet from his garden, the most conspicuous among which were the *Æsculus Macrostachya,* the *Yucca Flaccida,* and *Petunia Nyctaginiflora.*

Mr. George Still, offered some fine *Carnations,* and a lot of Antwerp *Raspberries.*

Mr. Wm. R. Cook, a collection of beautiful flowers, and six ripe Freestone *Apricots.*

Dr. Hosack presented, from his place at Hyde Park, a dozen of ripe *Tomatoes,* raised in the open ground, and some early *Celery.*

RURAL ECONOMY.

REMEDY FOR DISTEMPER IN DOGS.

J. S. Skinner, Esq. *Mount Airy, July* 9, 1830.

Sir,—In several numbers of the Turf Register, I see recipes for curing the distemper in dogs. I have one, I think the most certain cure I ever tried, and I have tried a great many. I have been raising more or less dogs every year, for these fifteen years, and have never lost one yet with the distemper. As soon as you discover it coming on the dog give him one table spoon full of common table salt, and so on for three mornings in succession, and the disease will be wholly removed. The dog may eat what he pleases, and there is no danger in his getting wet; although it is better to keep him as dry as possible; I have three pups raising now, two Newfoundland, and one pointer, and I have cured all of them with salt. If you think it worth putting in your valuable work you may do so. I remain one of your subscribers, and most humble servant. John A. Merrill.

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[*] Mr. Spalding seems to have confounded *lime* with *chloride of lime;* whereas they are essentially different, the lime being merely the vehicle of chlorine in the latter, and the *chlorine* the remedy or preventive of disease.—G. B. S.

BOTS IN HORSES.

Extract to the Editor.

Perhaps while writing to you it may not be amiss to mention that I have used all the recipes recommended in the Farmer for bots without success, but am now disposed to rely upon a chicken chopped up, and thrust down the throat of a horse, while warm, more than all the other remedies I have ever tried for the relief of a paroxysm of bots. The best preventive that I am acquainted with is hickory ashes and salt, given twice a week. C. B. F.

DOMESTIC ECONOMY.

(From the Gallia Gazette.)

DYSPEPSIA BREAD.

Mr. Harper,—Understanding that dyspepsia is somewhat prevalent in this part of the country, I hand you the following recipe for making bread, which has proved highly salutary to persons afflicted with that complaint, viz:

3 quarts unbolted wheat meal.
1 quart soft water, warm, but not hot.
1 gill fresh yeast.
1 gill molasses, or not, as may suit the taste.
1 tea spoonful of *saleratus.*

This will make two loaves, and should remain in the oven at least one hour; and when taken out placed where they will cool gradually. Dyspepsia crackers can be made with unbolted flour, water and saleratus, that will be much esteemed, and found very convenient for travelling.

Saleratus is pearl ash saturated with fixed air, or carbonic acid gas, by placing it in a shallow box about six inches deep, perforated with holes made by a large gimblet or small auger, and suspending the box under the cover of a fermenting vat or cistern of a distillery, as near the wash as possible without danger of its couching. If the fermentation is brisk, the alkali will be fully saturated in six or eight days, which may be known by its altered appearance, smell or taste, crumbling easily between the fingers.

This substance is getting into such general use in the eastern states, that most of the grocers and store keepers keep it for sale. Good house-keepers think it an important article in domestic economy. Bread made with it, wet with milk, will be very light in half an hour—and those who use it with yeast, say that there is no danger of ever having a sour batch of bread. For all kinds of cake it is highly useful; but caution is requisite not to use too much—a little practice will ascertain the quantity.

In a new country like this, where the inhabitants live at a distance from each other, and are liable to be called upon to exercise their wonted hospitality at all hours, an article that will enable them to produce good bread in so short a time, must be desirable.

A Massachusetts Traveller.

TO MAKE COLD SOAP.

The leach-tub or hogshead must be covered at the bottom with straw and sticks—then put in a bushel of ashes, then two or three quarts of unslaked lime, upon which you must throw two quarts of boiling water to excite fermentation and slake the lime; put in another bushel of ashes and as much more lime and water, and continue to do so until your vessel is full; put in hot water till you can draw off the lye, after which the heat of the water is not of much consequence. You must have at least two-thirds of a bushel of lime to a hogshead, if you wish your soap to be made quick; one hogshead of ashes will make two barrels of soap. When you draw off your lye, you must keep the first two pailfuls by themselves, and the next two in another vessel, and the third two in another vessel still; then weigh 29 lbs. of clear strained grease, or of scraps without straining 30 lbs. put into a large kettle with 3 lbs. rosin, then pour over it one pailful of lye, from the first drawn vessel, and one from the second drawn vessel, put it over the fire, and let it boil twenty minutes; be careful to add no lye over the fire, but swing off the crane if it is in danger of boiling over; put it into your barrel and put in one pailful of lye from the third drawn vessel, and give it a good stir; then weigh your grease for another barrel and take the lye remaining in the vessels in the same manner as for the first barrel; then draw off your weak lye, and fill up the vessels as fast as possible, remembering to put half in each barrel, that they may be equally strong; if your leach run through fast, you may have your barrels full in an hour, and so hard that you can hardly stir them. You must stir it after you begin to put in your lye, till your barrel is full. Fourteen quarts of melted grease is the quantity for a barrel.

INTERNAL IMPROVEMENT.

PETERSBURG RAIL-ROAD.

At the meeting of the Common Hall on Monday, notice was given by a member, that so soon as the individual subscriptions of stock to the Rail-road Company should amount to the sum of 150,000 dollars, he would move that the corporation subscribe 50,000 (one-fourth of the sum which that body by the town meeting were authorised to take) in order that the Company may be organized by the appointment of president, directors, &c. The individual subscriptions at present amount to 130,000 dollars; and we entertain no doubt that in the course of next week the sum of 150,000 will be made up. So far, so good—Indeed, all that we see and hear tends to encourage the cheering hope, that this magnificent work will be speedily commenced, and prosecuted with an energy corresponding with the importance of the results expected to be attained by its completion. [*Petersburg pa.*

ROANOKE TRADE.

Mr. Howard, Editor of the Tarborough (N. C.) *Free Press,* under date the 2nd. inst. makes the following remarks on the Roanoke trade, and the place that is, in his opinion, its "most natural and convenient market." His views accord with those of many intelligent Carolinians with whom we have conversed—they greatly prefer trading with Petersburg; but then, they say, the cost of transporting their produce is so much diminished since the opening of the Roanoke navigation, that they have been induced from this circumstance alone to change their market. Owing to this cause, many who formerly came to Petersburg, have this year gone to Norfolk—but, as considerations of *interest* induced them, against their wishes, to leave us—so will they gladly return when our Rail-road shall be completed, presenting to our old friends and customers facilities the extent of which few can conceive; and giving to Petersburg advantages *beyond the reach of rivalry.*

(From the Tarborough Free Press.)

The effects produced by the completion of the Dismal Swamp Canal, is another practical illustration of the impropriety and *injustice* of the general government contributing its funds for purposes of internal improvement. Previous to the opening of the canal, the surplus produce of the upper country of North Carolina and Virginia, bordering on the Roanoke and its tributary streams, found its most natural and convenient market at Fayetteville, Petersburg, or Richmond; but, the Herculean arm of the general government having been brought to bear on the obstructions which impeded its passage to Norfolk, they were finally removed and the produce from that vast and fertile section of country is now rapidly centering at the latter place, to the manifest detriment of those other towns. If this great diversion of trade had been effected by the enterprise and pecuniary resources of the citizens of Norfolk, or other individuals, the people of Fayetteville, Petersburg, and Richmond would have had no just cause of complaint; but, to take the "bread out of their mouths" through the instrumentality of a fund created for *national* purposes, to which they contributed their full proportion, is certainly an act of the most crying injustice. Petersburg is endeavoring to raise funds to construct a rail-road to the Roanoke to counteract this evil," &c. &c.

LADIES' DEPARTMENT.

MATERNAL INFLUENCE.

Maternal influence in the culture of the affections, those springs which put in motion the human machine, has long been conceded. That it might also bear directly upon the development of intellect and the growth of the sterner virtues of manhood, is proved by the obligations of the great Bacon to his studious mother, and the acknowledged indebtedness of Washington, to the decision, to the almost Lacedemonian culture, of his maternal guide.

The immense force of *first* impressions is on the side of the mother. An engine of uncomputed power is committed to her hand. If she fix her lever judiciously, though she may not, like Archimedes, aspire to move the earth, she may hope to raise one of the inhabitants of earth to heaven. Her danger will arise from delay in the commencement of her operations, as well as from doing too little, or too much, after she has engaged in the work. As there is a medium in chemistry, between the exhausted receiver, and the compound blowpipe, so in early education, the inertness which undertakes nothing, and the impatience which attempts all things at once, may be equally indiscreet and fatal.

The mental fountain is unsealed to the eye of a mother, ere it has chosen a channel, or breathed a murmur. She may tinge with sweetness or bitterness, the whole stream of future life. Other teachers have to contend with unhappy combinations of ideas: she rules the simple and plastic elements. Of her, we may say, she hath "entered into the magazines of snow, and seen the treasures of the hail."

In the moral field, she is a privileged laborer. Ere the dews of morning begin to exhale, she is there. She breaks up a soil, which the root of error and the thorns of prejudice have not pre-occupied. She plants germs whose fruit is for eternity. While she feels that she is required to educate not merely a virtuous member of society, but a christian, an angel, a servant of the most high, how does so holy a charge quicken piety, by teaching the heart its own insufficiency!

The soul of the infant is uncovered before her. She knows that the images, which she enshrines in that unpolluted sanctuary, must rise before her at the bar of doom. Trembling at such responsibility, she teaches the little being, whose life is her dearest care of the God who made him; and who can measure the extent of a mother's lessons of piety, unless his hand might remove the veil which divides terrestrial from celestial things?

"When I was a little child," said a good man, "my mother used to bid me to kneel beside her, and place her hand upon my head, while she prayed. Ere I was old enough to know her worth she died, and I was left too much to my own guidance. Like others, I was inclined to evil passions, but often felt myself checked, and, as it were, drawn back, by a soft hand upon my head.

"When a young man, I travelled in foreign lands, and was exposed to temptations. But when I would have yielded, that *same hand was upon my head,* and I was saved. I seemed to feel its pressure as in the days of happy infancy, and sometimes there came with it a voice, that must be obeyed—'Oh! do not this wickedness, my son, nor sin against thy God.' "

[*Mrs. Sigourney.*

MISCELLANEOUS.

(From the American Turf Register and Sporting Magazine, Vol. 1, No. 11.)

NATURAL HISTORY.

The individuals belonging to the animal family, of which we shall presently proceed to describe one species, are remarkable for the liveliness of their disposition, the quickness of their motions, and the general beauty and neatness of their appearance. They climb trees, and spring from branch to branch with astonishing agility. Some of them are furnished with hairy membranes, in the form of a lateral and expansile skin, which enables them to leap occasionally from one tree to another. But though, from this circumstance, they are called *flying squirrels*, they are incapable of keeping up their volant motion in the manner of bats. The tails of all the tree squirrels are very long, bushy, and light; having the long hairs so extended towards one another, as to render this appendage wider than deep. In the extensive leaps which the animals take from tree to tree, their tail seems to serve the same purpose which the feather does to the arrow; for it balances the body, and renders their motion through the air much more steady than it would otherwise be. The greatest number of the species live almost entirely in woods, and make their nests in the hollows of trees; others burrow in the earth, and are, therefore, called *ground squirrels*. They live entirely on vegetable food; particularly nuts, and other fruits. When on the ground, they advance by leaps; and in eating, they sit erect, and hold their food in their fore-paws. Many of them may with care be rendered docile; but when irritated they attempt to bite. The skins of all the species are considerably valued as fur, and their flesh is a very palatable food. But we must first state the zoological characters of the family and genus.

Class, Mammalia, &c. *Order*, Rodentia, no canine teeth; cutting teeth separated from the grinders by a vacant space; grinders most frequently with blunted prominences, having their crown somewhat flat, and formed of transverse laminæ, rarely furnished with sharp points; intestines very long; cæcum very capacious; claws crooked and not retractile; clavicles frequently entire. *Family* of the Sciurii, or Squirrel tribe. Cutting teeth simple, compressed, sharp edged; tail long, furnished with hair parted by a furrow; extremities nearly equal in length, five toes on the hind-feet, four on the fore-feet; entire clavicles; ears straight and of moderate length; eyes large.

Genus, Sciurus, lateral flying membrane wanting. Resident in both continents. The species we mean more particularly to describe is the

COMMON GRAY SQUIRREL. (*S. Carolinensis.*)

It is still very common throughout the United States, and was once so excessively multiplied as to be a scourge to the inhabitants, by invading the corn fields, from which it carries off and destroys a very large quantity of grain. Hence a pretty inveterate war is waged against it by the farmers.

Early in spring, the males of this species are observed to be particularly nimble and frolicksome, exhibiting wonderful proof of agility, while the females, like true coquettes, feign to avoid them by a variety of entertaining sallies. In warm summer evenings, they may also be seen playing their gambols among the trees; but they seem to dread the heat of the sun; for during the day they commonly remain in their retreats, reserving their principal excursions for the night. This retreat, or nest, is generally formed among the large branches of a great tree, principally oak trees, where they begin to fork off into small ones. Having selected the part where the timber is beginning to decay, and where a hollow may be more easily effected, the squirrel commences her operations by making a kind of level between these forks, and then fetching twigs, moss, and dry leaves, binds them so closely that they can resist the most violent storm. This part of the structure is covered on all sides, and has but a single opening at top, just large enough to admit the animal; and this opening is itself defended from the weather by a kind of canopy, formed like a cone, so as to throw off the rain, however heavy it may fall. The inside is soft, roomy, commodious and warm. During cold weather the squirrels seldom leave their snug retreats, except for the purpose of visiting their store-houses, and obtaining a supply of provisions. It has been said that the approach of uncommonly cold weather is foretold when these squirrels are seen out in unusual numbers, gathering a larger stock of provisions, lest their magazines should fail. This, however, it has again been remarked, is not an infallible sign, at least in vicinities where many hogs are allowed to roam at large, as these keen nosed brutes are very expert at discovering the winter hoards of the squirrel, which they immediately appropriate to their own use.

Like most of the animals, belonging to this order, they are very prolific. The young are generally three or four in number, and are produced about the middle of summer, and sometimes earlier. The squirrel is extremely watchful; and it is alleged, that if the tree in which it resides is but touched at the bottom, it instantly takes the alarm, quits its retreat, and glides from tree to tree till it is beyond the reach of danger. For some hours it remains at a distance from home until the alarm has subsided, and then it returns by paths, which, to nearly all quadrupeds but itself, are utterly impassable. Owing to its wonderful activity, it is very difficult to take a full grown squirrel alive, but we have seen boys sometimes contrive to lay hold of it, by assembling in the woods, and pursuing the animal with loud noises, and the barking of dogs, when it seems to lose its presence of mind, and falls to the ground.

The squirrel expresses the sensation of pain by a sharp piercing cry, and that of pleasure by a sound not unlike the purring of a cat. Besides, when teased or irritated, it occasionally utters a loud growl of discontent. It has been remarked that its gullet is very narrow, to prevent the food from being disgorged, in descending trees, or in leaping downwards. The species we are now describing, is remarkable among all our squirrels for its beauty and activity. It is in captivity very playful and mischievous, and is more frequently kept as a pet than any other. It becomes very tame, and may be allowed to spend a great deal of the time entirely at liberty, where nothing is exposed that can be injured by its teeth, which it is sure to try upon every article of furniture, &c. in its vicinity. It is curious, that in its wild state it satisfies its thirst only with the dew or rain collected in the leaves or the hollows of trees, but in its domesticated state it drinks freely, and a considerable quantity at a draught. In its wild state also, it feeds principally upon hickory nuts, chestnuts and mast; in a state of captivity, it will eat a great variety of fruits, and other vegetable substances, and is delighted with sugar and sweetmeats.

The gray squirrel varies considerably in colour, but is most commonly of a fine bluish gray, mingled with a slight golden hue. This golden colour is especially obvious on the head, along the sides, where the white hair of the belly approaches the gray of the sides, and on the anterior part of the fore and superior part of the hind feet, where it is very rich and deep. This mark on the hind feet is very prominent, and evident even in those varieties which differ most from the common colour. For some remarks on the apparent or supposed emasculation of the squirrel, we refer our readers to the 5th vol. of the American Farmer.

There are, belonging to the Genus Sciurus, at least twenty-nine species; we shall content ourselves with mentioning those only which belong to America.

1. *Common gray squirrel*—Sciurus Carolinensis—Gmel. Gedman's American Nat. Hist. vol. ii. p. 131.
2. *Fox squirrel*—S. Vulpinus. Gmel. Godman, p. 128.
3. *Cat squirrel*—S. Cinereus. Lin. Gmel. Godman, p. 129.
4. *Black squirrel*—S. Niger. Lin. Godman, p. 133.
5. *Great tailed squirrel*—S. Macroureus. Say. Godman, p. 134.
6. *Line-tail squirrel*—S. Grammurus. Say. Godman, p. 136.
7. *Four lined squirrel*—S. Quadrivittatus. Say. Godman, p. 137.
8. *The chickaree*—S. Hudsonius. Forster. Godman, p. 138.
9. *Red belly squirrel*—S. Rufiventer. Geoff. Godman, p. 141.
10. *Ground squirrel*—S. Striatus. Klein. Godman, p. 142.
11. *Rocky mountain ground squirrel*—S. Lateralis. Say. Godman, p. 144.
12. *Louisiana squirrel*—S. Ludovicianus. Curtis.

The *flying squirrel* belongs to the genus *Pteromys.*

THE FARMER.

Baltimore, Friday, July 16, 1830.

☞ From all quarters of the country we have accounts of abundant harvests of wheat, and that the quality is very superior. The weather in our immediate neighbourhood is most favourable for corn, as far as hot sun and frequent showers can ensure a good crop. Farmers who are out of debt, may keep so by observing wholesome economy and simplicity in their household and mode of living, but estates are rapidly crumbling to pieces, and families falling into poverty by frequent legal and voluntary divisions. Those whose mothers rode in carriages must ride on horseback, and the daughters of those who ride on horseback will have to walk. This general progress of things may be *retarded* by restricting our labour and manure to smaller spaces, and by great economy and great saving, by *giving away* old horses, if you can find any body fools enough to take them, and substituting oxen and mules for young ones, as fast as possible; by driving idle sons from the parental roof, as the hen does her chickens, when they can provide for themselves; in short, by keeping no dead capital, and feeding no idle mouths; and by regarding as the first objects of ambition to be—out of debt—with a clean conscience and a clean shirt.

[The following was addressed to a farmer, of Penn. who brought a bottle of the oil to Maryland—at a large dinner party on Elkridge, of gentlemen from town and country, of whom we had the pleasure to be one, the salad was dressed with this sun flower oil. It was eaten, and pronounced to be excellently well dressed, no body suspecting it not to be olive oil. When the British treaty was made, *cotton* was deemed to be an exotic product, unworthy of regard.]

The Sun Flower—*its culture— product—properties, uses and value.*

The sun flower is cultivated like Indian corn, planted in rows—the rows three feet apart and stalks eighteen inches.

Any land which produces corn will yield from 50 to 70 bushels per acre, and it is worth 75 cents a bushel.

The single headed kind is preferable, and as soon as ripe, which is known by its shattering—the heads are taken off, carted to the barn floor, and immediately threshed out with the flail, it should be cleaned with the wind mill, [or fan we suppose,] and then spread out, and occasionally turned or stirred to become dry, if left upon a large heap it may mould.

By an improved mode of extracting the oil, a bushel of seed yields a gallon of oil—three quarts cold pressed, and one quart by heating. The cake when ground is very nutritive as cattle feed, and will pay the expense of the miller.

The oil used as a purgative appears to have the same effect as castor oil, without the nausea.

Of the bottles sent, one marked with a yellow ribbon, was expressed about two months ago—the three other bottles were expressed four weeks since. The first is clearer, owing to the difference of the four weeks; it clarifies without any preparation. The three bottles are finer in their taste than that marked, which is owing to an improvement in the machinery for making it.

A bushel of seed will plant about 10 acres. I can furnish any gentlemen disposed to cultivate it with the best seed. I expect to raise about 500 bushels this season, and have engaged others in raising probably as much more. Chas. A. Barnitz.

(From the Petersburgh Intelligencer, June 30.)

WHEAT AND FLOUR.

The milling season begins this year much earlier than usual—*Wheat* is now coming in freely, and sales at 90 to 95 for red, and 95 to 100 for white—its quality is far superior to any made in Virginia for several years past.—It generally weighs from 63 to 65 pounds to the bushel. Several of our milling establishments are already in full operation.—We have not as yet heard of any sales of *flour;* while in Richmond engagements have been made for all that can be delivered this, and by some millers part of the next month. Shippers we recommend to turn their attention to our market.—There is now daily manufactured from 300 to 400 bbls. and there will shortly be from 5 to 600 bbls; added to which, the country *flour* coming in through our canal, expected this season to be from 25 to 30,000 bbls.—we may fairly calculate to have to dispose of this year from 90 to 100,000 bbls.; a quantity we should suppose of sufficient magnitude to attract purchasers. We also understand that our millers are much dissatisfied with the enormous charges they have submitted to for several years past, on their shipments to northern, eastern and southern ports, and are very desirous *to sell at home.* The quality of their flour, they warrant fully equal to any manufactured in the United States; and have no doubt, it will on a fair trial do away the prejudice that has so unjustly existed against *Petersburg flour,* and make our town once more a flour market.

Tobacco and Cotton.—No change in these articles—sales of passed tobacco, 4.50 a 5.50. Sales of cotton yesterday, 10 a 10½ cents.

Richmond, July 9.

We had understood from a gentleman in the course of yesterday forenoon, that a reduction had taken place in the price of wheat—with a view of ascertaining the fact, we applied to a merchant, who does a great deal of business, and learned that there has been little or no variation in the prices of produce for several days past—90 cents for red, and 90 to 100 cents for white wheat, are the current rates.

Canal flour (old) $4¼, no new yet in—new city mills, nominally $5¼, no recent sales. Tobacco without change.—*Compiler.*

Fredericktown, (Md.) July 10.

Harvest.—Most of our farmers have, during the present week, finished cutting their grain. A more abundant crop, or one of finer quality, has rarely if ever crowned the labours of our agricultural friends. A gentleman of observation and intelligence, who has taken some pains to inform himself on the subject, estimates the present crop of wheat in Frederick county at a million and a half of bushels, which will yield upwards of 300,000 barrels of flour.

(From the Norristown, Pa., Register.)

The Crops.—The grain harvest has commenced throughout our county, and we learn from all quarters that there is every prospect that the industry of our husbandmen is to be rewarded with overflowing granaries. The hay crops generally, have also been unusually luxuriant, and our farmers have great and abundant reasons for gratitude to that beneficent Power who has crowned the year with his goodness, and the labour of their hands with plenty.

The Paris Central Society of Agriculture, at its last sitting, awarded the following prizes:—2000 francs to Messrs Flackat and Mulot, for their process of boring for Artesian wells. Another, for the same object, to Messrs. Fraisse and Poitevin; and also a gold medal to M. Favel. 1000 francs to M. Payen for a memoir on the use which may be made of the carcases of domestic animals when dead; and other prizes, of small amounts, on different subjects, making altogether 7000 francs. Several gold and silver medals were also presented. The prizes of next year are to be, first, 1500 francs for the best treatise on the use which may be made of the dead bodies of domestic animals: 1500 francs for the best treatise on the blindness of horses: 3500 francs for the best model of a threshing and winnowing machine: 3000 francs for the best treatise on the mode of boring for water: 1000 francs for the best treatise on the culture of the pink poppy. Three prizes are also announced for 1834.

A very superior mode, says a late English paper, of preparing the decoction of sarsaparilla (now a very fashionable as well as good medicine,) to that in general use, has been adopted by an experienced chemist. The sarsaparilla (or with the other articles if the compound decoction is wanted) is put into a jar; and, instead of adding a large quantity of common water and putting it to boil until it is reduced one half, the quantity necessary of recently prepared lime water is to be poured upon it, and after having been stirred two or three times during twenty-four hours, it is fit for use, the virtue of the sarsaparilla having been entirely extracted. The proportions of sarsaparilla, &c. either for the compound or simple decoction, may be known at any chemist's, or by reference to a Pharmacopœia.

Latest Foreign News.

By the Britannia at New York, London dates are received to the 2nd of June. Although the king was alive, no hopes were entertained, or expressed even by the papers in the ministerial interest, of his recovery. Prince Leopold, has declined the sovereignty of Greece, for reasons more honorable to him than would be the regal splendours of all the thrones of Europe. They entitle him to the appellation of a *Republican Prince,* however paradoxical the phrase may appear. His reasons are founded principally upon manifestations by the people of Greece that the Sovereign chosen for them was not acceptable. It is also objected that by the same treaty which confers on him the sovereignty of Greece, a portion of that country, Acarnania and a part of Etolia, is required to be given up to the Turks; that the inhabitants of these provinces will never submit again to the Turkish yoke, and in resistance will have the co-operation of the rest of Greece; and that therefore, "his first act as a Sovereign will have to be either to compel his own subjects by force of foreign arms to submit to the cession of their estates and properties to their enemies, or join with them in resisting or evading a part of that very treaty which places him on the throne of Greece." Prince Leopold remarks, in conclusion of his resignation, that when he contemplated the distinction of becoming Sovereign of Greece, it was with the hope of being fully and freely acknowledged by the Greek nation; that he now sees those hopes annihilated; that the arrangements of the Allied Powers and the opposition of the Greeks prevent him from effecting the object he had in view—the establishment of Grecian independence on a permanent and honorable basis—but would impose on him, instead, an office of a very different character—that of Delegate of the three Allied Courts, to hold Greece in subjection by the force of their arms—and he, therefore, "formally resigns into the hands of the Plenipotentiaries, a trust which circumstances no longer permit him to execute with honour to himself, benefit to Greece, or advantage to the general interests of Europe."

Liverpool Markets.

Liverpool, June 1.

Cotton.—In the beginning of May the demand for Cotton was rather brisk, and a slight improvement in the prices took place; but large arrivals having since come forward, and the dealers and spinners being inclined to purchase sparingly, the market became dull, and continued so during the greater part of the month; the prices of most kinds have latterly receded ⅛d to ¼d per lb. so that they now rate nearly the same as at the date of our Prices Current of the 4th ult. The report of the Manchester market is less favorable than it was a month ago; there is still a very limited demand for export Yarn, and Piece Goods have been tending downwards in price, but there is an expectation of a better demand ere long. The arrivals into the Kingdom have been nearly equal to those of the first five months of 1829, but the stocks, though rather increased in the last month, are still 165,000 bags less than at this time last year. Our future currency must be in a great measure ruled by the imports to arrive during the remainder of the year; but the general impression remains as strong as ever, that they will not exceed the wants of the trade, as at present there is no indication of a falling off of the consumption. The quantity of Cotton exported from Great Britain is 20,000 bags less than in the first five months of 1829.

WHEAT AND FLOUR.—Large arrivals of Flour have taken place from the United States, and considerable quantities are still expected to arrive from that country. It appears that a large proportion of the foreign Wheat and Flour which has been lately imported remains in bond, the holders having deferred paying duty under an idea that prices are not likely to be materially lower, even if we have a good harvest (as the stocks of Corn are so light in this country,) and that if the crops should be indifferent, the prices will advance so much as to reduce the rate of duty below what it has been: at present, however, the demand for bonded Flour and Wheat is extremely limited, and prices quoted may be considered in a great measure nominal quotations.

RICE.—There is very little demand for American Rice in bond for exportation, and the home trade is supplied from that cleaned from the husk in this country, which is preferred.

Liverpool Corn Exchange, June 1.

Since this day week the imports of grain from Ireland and coastwise, have again been very moderate; but of wheat from the Baltic the arrivals have been considerable. At this day's market we have had a very good attendance, and sales to a pretty considerable extent were made almost exclusively of foreign wheat at the prices of last Tuesday—oats were ½d. a 1d. per 45 lbs. lower, and sales only to a limited extent effected. No alteration in other articles.

TRADE.—According to a parliamentary return, just printed, 1,032,896 lbs. of British wool, and 589,558 lbs. of woollen and worsted yarn were exported from this country in the year 1829; and 21,523,542 lbs. of Foreign wool were imported, of which 14,110,006 lbs. were from Spain, and 1,836,642 lbs. from New South Wales and Van Dieman's Land.

London, May 31.

There is no alteration in the price of wheat from last Monday's report, and fair sales have been made at the quotations then given, of all descriptions. The barley trade remains also as we last noticed, but with very little doing, and oats may be quoted without any variation from the quotation of Tuesday last. Beans, peas, and all other articles of grain are also as we last quoted, and flour remains at the quotation of this day week.

Prices Current in New York, July 10.

Bees-wax, yellow .20 a 23. *Cotton*, New Orleans .10½ a .13; Upland, .9¾ a .11½; Alabama, .10 a .12. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .17. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a ——; Canal 5.12½ a 5.50; Balt. Howard st. 5.00 a 5.12½; Richmond city mills, —— country, 4.75 a 4.87½; Alexand'a, 4.75 a 5. Fredericksburg 4.75 a —— Petersburg, 4.75 a 4.87½; Rye Flour, 3.37½ a 3.25; Indian Meal, per bbl. 2.50 a —— per hd 12.25 a 12.50. *Grain*, Wheat, North, 1.06 a ——; Vir. — a —; Rye, North, 64 a 66; Corn, Yel. Nor. .53 a 54; Barley, — a — Oats, South and North, .32 a .40; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 10.00; prime a 6.25 a 6.75; cargo 5.— a —— Butter, N. York, 12½ a 15; shipping, 6 a 11; Lard, .8 a .8¾; Pork, mess bbl. 13.50 a 14.12½; prime 9.75 a 10.12½; cargo 5.50.

Prices Current in Philadelphia, July 12.

Bees-wax, yellow .21 a .22; *Beans*, bushel $.75 a .80; *Beef*, mess 10.00 a —- prime 8 a 9, cargo 7; *Butter*, No. 1, 6 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .10½ a .12½; Upland 10. a .11, Tennessee 10 a .10½, Alabama 10 a 10½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 4.56, fine, 4.25 a —— Rye 3.31 a —— Corn meal, hds. 11.00 a —-, bls. -—— a 2.25; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat .95 a .98 Rye 48 a 52, Corn l. c. white, .38 a .40, l. c. yellow, 41 a .43, u. c. round, 44 a 45; Oats .28 a .35; Barley, Pa. .60 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey .9 a .10, Virginia 9 a 9½, Western .9 a .9½; *Hemp*, 210 a 220; *Lard*, .- a .7; *Oil*, linseed, 73 a —; *Pork*, mess, 13.50 a ——, prime 11.50 a —; cargo 11. *Rice*, 2.25 a 2.50; *Tobacco*, Kentucky .4 a .7, Vir. .4 a .5½. *Wool*, common washed lb. .25 a .30, half blood .37 a 40, three quarters blood .40 a 45, full blood 47 a .50; unwashed, generally 6 cents less, according to quality. &c. &c.

Prices Current in Charleston, July 5.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 25. Upland, inferior and common .9 a .10, fair to good, .10 a 10½, prime to choice, .10¾ a .11½. *Rice*, prime, $2¼ a .2½, inferior to good, do. $1.87½ a .2.12½. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5½ a .5¾. *Corn*, North Carolina, .— a —.; Maryland, .45 a .—. *Oats*, .37 a .—; Peas, 65, sales. *Hay*, prime Northern, .90 a 93. *Whiskey*, Philadelphia and Baltimore, hhds. .24 a .-—; bbls. 25½ a 26; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork*, Mess. .13½ a 14; Prime, .— a .11, scarce. *Bacon*, .7 a .— cents; Hams, .8½ a 9; Lard, 8½ a 9. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

MACDUFF,
FOR SALE,—PRICE $300.

He is a full bred Durham short-horned bull, bred by Mr. Powell of Philadelphia: red and white, calved in June, 1827. *Dam* Annabella, sold at the auction of Mr. Powell's cattle on 16th June, to Mr. Freeman of Baltimore for $310.--*Sire*, Mr. Powell's celebrated Bull *Malcolm*.

The stock from Macduff has proved good, the bull may be seen on the farm of the subscriber near Newark, New Jersey. Letters directed to him, 27 Nassau street, New York, will be attended to. A. DEY.

New York, June 22, 1830.

AGRICULTURAL WARE-HOUSE AND SEED STORE,
No. 36, West Pratt-street, Baltimore.

ON HAND, and constantly manufacturing, a general assortment of AGRICULTURAL IMPLEMENTS, of the best materials and on the latest and most approved plans. The Subscriber's WHEAT FANS are of the latest improvement, and will be warranted to please. His Patented CYLINDRICAL STRAW CUTTERS have never been surpassed in this, or any other country, for durability, facility of cutting, and adaptation to any power and every kind of long forage; and also for cutting rags for making paper. All persons making, vending or using the aforesaid patented improvements without proper authority from the Patentee, must expect to meet the penalty of the law for all such offences. Also on hand, a general assortment of GARDEN SEEDS, grown and warranted by the Messrs. Landreths, of Philadelphia. J. S. EASTMAN.

☞ All orders promptly attended to.

ALMANAC.

1830. JULY.	SUN. Rises.		SUN. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 17	4	44	7	16	14	32	2	25
Sunday,...... 18	4	44	7	16	14	32	3	09
Monday,..... 19	4	45	7	15	14	30	4	10
Tuesday,.... 20	4	46	7	14	14	28	sets.	
Wednesday, 21	4	47	7	13	14	26	8	23
Thursday,... 22	4	47	7	13	14	26	9	05
Friday,....... 23	4	48	7	12	14	24	9	33

New Moon—19th, 7h. 35m. Afternoon.

BALTIMORE PRICES CURRENT.

Corrected for the American Farmer.

BALTIMORE MARKETS.—Flour continues about the same as at our last—very little Howard street coming in, and small demand. The wagon price is $4 87½. City mills flour, extra quality, from new wheat, sells for $5. Beef is again exceedingly dull, and has declined.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a 28 00—St. Domingo, 8.00 a 15.00. The inspections of the week are 119 hhds Maryland, 84 hhds. Kentucky; 28 hhds. Ohio; and 3 hhds. Pennsylvania; total 234.

FLOUR—best white wheat family, $5.50 *a* 6.00—super. Howard-street 5.00-—-city mills, 4:62½——Susquehanna, ——; CORN MEAL, bbl. 2.25—-—GRAIN; best red wheat, new 85 *a* 95; best white do. new 95 *a* 1.00; Maryland red 80 *a* 87½—CORN, white, .43 *a* .45; yellow .45 *a* .46—-RYE, .48 *a* .50-—OATS, .33 *a* .—— BEANS, .90 *a* 1.00-PEAS, .40 *a*. 50-CLOVER SEED, 3.75 *a* 4. TIMOTHY, 2.50 *a* ———ORCHARD GRASS, 1.50 *a* 1.75—Herd's, .75 *a* 1.25—Lucerne 30 *a* 37½ lb.—BARLEY,-FLAXSEED, 100 *a* —COTTON, Vir. 9½ *a* 10½ Lou. 11 *a* 12 —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .22 *a* .22½; in bbls 23 *a* 24—WOOL, common, unwashed, lb. .15 *a* .16—washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $210 *a* 212; Country, dew-rotted, 5.5½c. lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. .4.00 *a* .4.25 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.50 *a* ——BACON, hams, Balt. cured, .9½ *a* .10—-Feathers, .— *a* 33—Plaster Paris, cargo price per ton, 3.80 *a* 3.90 ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.00 *a* 4.75—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

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Printed every Friday, at Five Dollars per annum, for
JOHN S. SKINNER, Editor, by JOHN D. TOY.

AGRICULTURE.

(From the Southern Agriculturist.)

SUGAR CULTURE.

Memoranda of the Culture of the Sugar Cane, and Manufacture of Sugar: by B. McBride.

Hickory Hill, February 17th, 1830.

Dear Sir,—Your letter under date, 29th January, came to hand on the 7th inst., and should have been answered before this, but for my own and family's indisposition. I feel satisfied that I shall fail in rendering such information, as you anticipate, on the subject of the Sugar Cane. The many able and experienced hands, who have preceded me on this subject, leave but a limited space for me or my operations; however, it is with pleasure that I contribute the result of what I have realized from my little practice (more for amusement than any thing else) in both the growing and manufacturing sugar from the cane, made upon my own soil; and, if the success of these few experiments should have the effect of giving fresh vigour, and imparting new energy to the agriculturists of my own state, or in fact any other, I shall be truly gratified. In complying with your wish, I cannot conceive a better plan, than to give extracts *verbatim* from my agricultural *note book*, relative to Sugar Cane, commencing as follows:

"1828, *Feb. 11th*—Planted one hundred and thirty-four hills of Sugar Cane, in each two eyes, of the Otabeite kind, in beds four feet apart from centre to centre. On the same day planted 9 hills of Ribbon cane, in each 2 eyes, which I brought with me from the Appalachicola river, Florida, in December 1827; 7 germs only, from the 18 eyes came forth; having, as I suppose, been injured from a long journey and cold nights, to which it was unavoidably exposed,—from the 134 hills, I have been more fortunate in sprouts."

"*April 7th and 8th*—White, and in fact, black frost last night."

"*April 10th*—The little effect which these frosts have had on my cane, particularly the Ribbon, is a convincing proof to me, of the hardness of this plant, over that of corn or cotton, as the frosts have now shown their fatal effect—corn, cotton, oats, garden peas, &c. &c. all destroyed, and to my great astonishment, my cane appears to be in good health, at least the stalk part."

"*April 4th*—In fact so far as I have seen yet it appears to be the hardiest among all the first born infants of the spring; for even oaks and other trees have been killed to the mother stump." In addition to these extracts, I will here observe that this cane was from 5 to 10 inches high when the frost came, and that it was more or less protected by the pine trees of the adjoining woodland. The top blades were singed, leaving a green stalk from one to three inches from the ground, which put forth and was quickly accelerated from a few days warm sun, but not so with corn. All was ploughed up, as was my cotton, and planted anew."

"*Oct. 20th*—White frost last night cut my patch 134 hills of cane, in fact less; only 122 came up, and find 1034 full grown stalks; and 76 stalks from the seven hills of Ribbon, all of which are matured from 14 to 16 joints, say 5½ feet. These canes are equal to any presented to my view while in Florida in November and December, 1827—have banked them similar to potatoes."

"1829, *Feb. 10th*—Have this day taken out the canes, which were banked on the 20th October last, and am mortified to find, from a close examination, that there is not one good eye among all my Otaheite, while, to my great astonishment, every eye of the 76 Ribbon cane are sound, although in the same bank. This loss was caused from a large air-hole which had been left with the intention of closing at some future day, but was neglected, and which gave too free access to the cold air on the 11th and 12th days of January—days which were cold to excess. This plan of banking will not do, the cane should be covered over entire, without an air-hole. Three inches of earth with pine straw will be quite enough."

"*Feb. 11th*—Cut and planted the 76 Ribbon cane, making 90 hills 6 feet apart."

"*March 2d*—Recovered to-day, after three weeks diligent search, 800 cane of the Otaheite kind, being all I could obtain."

"*March 4th*—And have chosen this day to plant them, being the first day of a new administration by president Jackson—and with this administration, will commence this new culture, with a determination to pursue it, should I live so long, at least, as his administration lasts, and if successful, longer of course. Having my land previously prepared by throwing five furrows together with a straight sided half shovel plough, forming a bed of two feet wide, in the centre of which, was run a furrow of 8 inches wide and 6 deep, giving me quite space enough for compost, and to place the cane with the eyes horizontal; have planted it in three different places—lands of equal fertility, as follows:

703	hills, two eyes to each plant,		4 feet	apart,
1096	do.	do.	5	do.
1434	do.	do.	6	do.
3233				

These, together with the Ribbon and last year's Ratoon, are almost equal to two acres, at 5 feet distant."

"*April 15th*—I am sorry to see my cane so backward in germinating, except the Ribbon, every hill of which is now up, and from 6 to 10 inches high."

"*May 10th*—Since the 15th of April, there is great improvement in all my cane."

"*June 20th*—Part of my cane planted in the lowest land, looks bad and diseased, owing to too much rain, which has completely saturated the earth; this I cannot remedy for want of proper drains. I find that cane will stand a partial inundation well, as is proved with a few hills planted in my rice-field, which were several times partially overflowed, but not long enough to suffer, the earth was completely filled with water before the proper drains could take it off, this cane was equal to any made; but a saturated soil, if suffered to continue so, will, I am convinced, destroy this plant."

"*July 27th*—Great improvement is visible in my cane, particularly the Ribbon, which looks luxuriously beautiful, from 4 to 7 feet high, averaging about 14 stalks to the hill, while the Otaheite only from 8 to 10. This day finishes the husbandry of my cane, which was performed alternately with the plough and hoe to equal advantage, requiring about the same labour, as that of a corn crop, excepting the planting, which is more tedious. I now leave it for future operations in the fall—it now wants rain."

"*Aug. 25th*—Prospects of cane, gloomy—no rain yet."

"*Sept. 28th*—More gloomy, a few tender showers from heaven, would be thankfully received by the laborious man who has done his part."

"*Oct. 21st*—Prospects worse, cane ruined, growth retarded for want of rain. From the 7th of July till the present day, not rain enough to lay the dust, yet wonderful to tell, some parts of my Otaheite cane is perfectly dead, while other parts have continued to grow slowly, and have matured from 8 to 12 joints. The Ribbon has stood both, the wet in the spring, and the present and past drought much the best, (having matured from 12 to 14 joints,) and none have died as the Otaheite. Fully confirming (in my opinion,) that it is far the best cane for a *certain* crop, as it withstands wet, dry, cold and heat most astonishingly."

"*Oct. 31st*—Finding some vicissitude in the air for a few evenings past indicative of frost, I have cut down with a broad, sharp and heavy spade (far the best implement for the purpose,) my patch of 703 hills of cane, (less, 96 hills destroyed) which I have banked for seed, and regret that I have not land prepared at this moment for its reception, being fully convinced as I am, that the best time for planting cane is at the time it is cut down, *before frost;* this not only prevents the trouble of banking and taking out, but it saves the unavoidable destruction of many thousand eyes, which when banked germinate from the created heat, and are broken off by the handlers while planting. Again, so soon as a cane is placed in the earth, notwithstanding cold weather, with 8 inches of soil upon it, it commences to put forth roots ready to force and support an early sprout in the spring; this I have witnessed from the few plants of Ribbon, brought with me from Florida in December, 1827; which on my arrival home were placed in my garden, covered with at least 8 inches of dirt; in taking the same up in February 7th, ensuing, I found *many roots* from each *joint*, 2, 4 and 6 inches long, which were seeking support for the germs, *then* started from 2 to 4 inches from each eye. Influenced by these observations, (unless my mind be hereafter changed by others) I shall ever plant cane in October, November or December, but during the two former if possible; this may be conveniently done, by curtailing my cotton crop, say one half or more, and substituting cane in its place, say 2½ acres of cane and 2 or 2½ of cotton to each hand, quite as much as I should ever desire, and while neither of these half crops would interfere with the other, in housing or manufacturing, I believe they could be made both convenient and profitable. For the last seven years I have had, by the 15th of October, picked in, nine-tenths of my Mexican cotton; at which time I could conveniently have commenced operations with the cane, with all able hands, leaving the residue of my cotton to be picked in with such hands as were not well able to perform the labour required among cane: but here I have calculated from a full crop of cotton, with a half crop, as intended, I can commence with cane, if necessary, by the 1st of October or before, giving plenty of time, both to plant the ensuing crop of cane and manufacture the present half crop, with proper means to do so, by the 1st of December, leaving quite time enough until spring to gin and send the cotton to market, &c. &c. These are the views which I have taken, and leave them here on record for future experiment."

"*Nov. 7th*—Cut my Ribbon canes, 1264 stalks from 90 hills, and notwithstanding several severe frosts to which these canes were exposed, I find them sound with but few exceptions of the outside stalks; the *interior* of the hills being so completely protected by their density as to prevent the cold from penetrating; in fact, nothing short of a freeze will destroy this plant. Have also cut and banked my patch of 1434 hills, (less 196 destroyed by moles, and dead canes,) find they have been much injured by frost—only a few good eyes near the root; shall grind these as soon as convenient."

"*Nov. 24th*—Finding the weather cold, and my mill not ready for operation, I have cut my patch of 1096 hills of cane (less 134 dead and destroyed by moles) which I intend to crush, so soon as my mill is finished, and for fear of too great *acidity* with these, now half frozen cane, which would be the case from the *created* heat in *banking*, I have placed them in *piles* and covered them with pine straw, so as to allow free access of air. My Ratoon canes, I have also cut, they are equal to the best of the Otaheite plant canes, and sweet almost to excess."

Dec. 8.—My mill being ready for operation, have expressed the juice from the canes last cut down and *not banked*, and commenced the process of boiling in three plantation pots, placed in a furnace, containing 75 gallons. Boiled from 11 o'clock, A. M. till 10 minutes past 4 P. M.—emptied into coolers, and it granulated immediately; it was then put into a drainer of an inverted conical form with a hole at the bottom, for the molasses to escape. In *tempering* or refining the juice before boiling, I find from prior experiments on a smaller scale, that one gill of lime first dissolved in warm water, quite sufficient for every 65 gallons of juice, more made the sugar clammy, from which I suppose too much lime had been used; quick and attentive skimming of the impurities, which rise with great rapidity while boiling, is indispensable."

"*Dec. 10th.*—Extracted with my mill and one pony, 65 gallons of juice in 28 minutes, added, one gill of lime as before; boiled 4 hours and 45 minutes, which when emptied, granulated immediately, put to drain in a barrel with holes at the bottom, and some part in oznaburg bags."

"*Dec. 14th.*—Have to day extracted the juice from the canes cut and banked on the 7th of November. Boiled 4 hours 55 minutes. Emptied, but no granulation for 30 or 36 hours after. Second boiling, added more lime with dried pulverised clay, but with no better success, from 24 to 36 hours before granulation. Third boiling, on a smaller scale, added still more lime without any good effect, granulated about the same time, but the sugar clammy from too much lime being used, as I suppose. The created heat in banking these canes, had caused all of the sound eyes to sprout, from which, I must believe, the saccharine or granulating sweets, have been contaminated."

"*December 16th.*—Extracted and filled my boilers with the juice of the unbanked cane, added my quantum of lime; boiled 4 hours and 36 minutes; emptied and it granulated forthwith. Second and third boiling, the same process; and the same effect."

"*Dec. 28th.*—Not having tried my Ribbon cane. (owing to the small quantity for seed) I felt anxious to do so, and for that purpose extracted one measured gallon of juice which I reduced to sugar in 64 minutes from the first ebullition of the pot. This goes to prove, to my satisfaction, that the Ribbon cane is far superior to the Otaheite, or in other words, the juice is higher charged with the sweets necessary for granulation This ends my process in boiling sugar for this season, having reached the desideratum aimed at; that of making sugar from the cane of my own soil."

"*Dec. 30th.*—Finished planting all my seed cane to day in beds four feet from centre to centre, prepared with the plough, (as it was the last year,) placing the cane thus ‾‾══__ turning top and butt together, with the eyes in a horizontal position. I find beds four feet apart, to be the proper distance to plant canes in; and, from observation, I have been induced to believe, that their maturity is greatly accelerated by their density, although when planted thin, they will, no doubt, grow larger, and, from an external view, appear matured as high as those that are thicker, and of course smaller; yet, from a close examination of the larger cane's internal part, there will be found (such was the case with mine) in the centre, the diameter of this O, which, from all appearance, does not mature, while nothing of this kind can be found in the centre of the small and thick canes. Again, the small canes are much easier and more effectually crushed in the mill than over-grown ones."

Thus end, Sir, the extracts of some few facts, realized from my experiments in the sugar business, which you can, from their extended length, curtail, should you think proper, and as to the opinions, which I have ventured to accompany them with, they are such as were, at the moment of my operations, conceived. I do not, therefore, pretend to vouch for their correctness, but you must take them for what they are worth; they are, however, such opinions as must govern me in my future operations, until from experience, I can conceive better. The South Carolinians do not want excitement to induce them to undertake what is supposed lucrative; but, what is to be most regretted, I fear we are equally quick to despond without making a fair and manly struggle to surmount what we may suppose difficulties; but in this instance of excitement, in growing the cane and manufacturing sugar in this State, I most hope that we shall hold out to a good end; it wants nothing but enterprize and industry to be completely successful, these alone will call science to our aid. The Lousianians, I have been told, make from 2 to 3, and even 4000 pounds of sugar to the acre, and plant 5 acres to each hand. Such pictures of fancy shall never disturb me. I have a statement showing that upwards of 4000 pounds of sugar could, or had been made, from one acre of cane, in Florida, *without manure too;* and another, 3600 pounds; but these are nothing more, Sir, than golden dreams never realized. Could I be made to believe it, I would soon leave this, my beloved state, though equal to the best, and precipitately take flight to some of those fertile spots. And who is it, that would not be allured in the same way? That from 1000 to 15000 pounds of sugar per acre can be made in Louisiana or Florida, I have no doubt, nor have I the least doubt, but that 1000 lbs. may be made from an acre of good land in South Carolina; for instance, on such land, as is considered the best between Savannah and Charleston, south of 33°. But, Sir, I shall be content to realize 600 pounds per acre, and plant only 2½ acres to the hand with 2 or 2½ of cotton or rice. This, at $10 per hundred, adding the molasses, would give me $150; this added to 2½ acres of cotton, say $35, would be $185 per hand; this calculation is certainly low enough, yet I believe the sum more than equal to what the best agriculturists are realizing at this time, and *three* times as much as one-half are—again, by adopting this mode of planting, the husbandman could bring into repute such lands, as he has heretofore found of no value, for the production of cotton, yet well adapted to the growth of the cane: for example, rich bay or swamp lands well drained. A full crop, or 5 acres of cane to the hand, could not be planted, without augmenting the expenses for the manufacturing of sugar (so as to complete it at a proper time) to a fearful extent, while half a crop may be manufactured, in due time, at but a small expense; consequently will suit both the land and purse of the yeoman best. These, however, are my views on the subject, and such as I shall attempt to accomplish; but I shall proceed *cautiously*, $300 worth of boilers must answer me. Necessary houses to answer the purpose can be built with but little trouble or expense; for instance, a clay walled house (to save the expense of brick) will answer an excellent purpose for both a boiling and draining house, and if any man should be so unfortunate as not to have *clay*, it is to be hoped that he has *pine poles*, which can be substituted in lieu. The common gin houses will answer every purpose for grinding the cane in, by setting aside the cog-wheel for a few weeks. This season of making sugar too, will be one of festivity, both to man and beast—the agreeable juice of the cane is nourishing to the corporeal frame, from which man and beast must derive health and vigour—in fact, myself, children, negroes, cattle, hogs, dogs, all fed upon the cane and its offals, during the process of boiling.

I had almost forgotten your request, as regards manure, and must answer it with but few words, as my communication has become tedious. Every year for the last ten, has increased my esteem for this auxiliary of the husbandman, which I make in various ways; however, my principal plan is, to keep my pens well covered, both winter and summer, with oak leaves, pine straw, swamp mud, &c. &c. and when *well trodden* by stock, it is thrown up in large piles, which remains for at least *twelve months* before it is used, after which time it is quite immaterial to me on which side of a hill, or whether at top or bottom, it is placed, so that a proper quantum, not *excess*, be applied in due time, and well covered or admixed with the soil; it has in every instance, when applied in this way, proved its great utility to me—but not so with *new* compost. Nothing can be better manure for the sugar cane than cotton seed, but this, as well as other plants, may be manured to excess. My crop for the last eight years prior to 1829, has been what I will call an average one to the hand, but last year difficulties met me at every step.

I well recollect the purport of the directions, to which you allude, furnished Mr. Speights some four or five years since, for the regulation of my plantation, during my absence to the western country, and can venture to say, at this time, that such arrangements as those answered, with but few, if any exceptions, and serve at this day to govern me in my police and management of my farm, &c. With these views, I beg leave to tender you my best wishes for the success of your useful labours. B. McBride.

(From the New England Farmer.)

ON MANGEL WURTZEL, &c.

Mr. Fessenden,—In your New England Farmer of the 25th inst. is a piece making some inquiries about *Mangel Wurtzel*. Having cultivated it, on a considerable scale, for as much as fifteen years past, during that period I have never known it to be attacked by the *Cabbage Louse*. It has always been subject to be cut off, from one quarter of an inch, to one inch under ground by the white grub, of the *Cockchaffer* bug *Scarabæus melalontha*, (this insect is well described in the first volume of the New England Farmer, page 102.) We have, generally, not thinned out our plants, till the roots have become from one-third to half an inch in diameter lest our crop should be *too much thinned by them.*

This year for the first time to my knowledge, they have been attacked by the *black cabbage* grub, which cuts off the leaves *above* the crown of the plant. Some recover from this attack. I have had to replant, to fill many vacancies destroyed by them; and if these should be cut off, I intend to fill up, by transplanting ruta baga, any time before 20th July, previously loosening the ground with the hoe. I have found the best method for destroying these grubs, is to plough, (or dig if in a garden and throw into ridges) *as late in the fall as possible,* say last of November or early in December, which throws them near the surface, and if frost soon takes place, prevents their getting down, out of its way. I also think a good dressing of lime or ashes, (only harrowed or raked in, to be kept near the surface,) will have a good effect, in checking or destroying almost all the insects that disturb our crops.

Last year I had about one quarter of an acre of cabbages, that were very nearly covered with the *cabbage louse;* I took off the outside leaves and burnt them. Having a few gallons of very strong tobacco liquor (left after sheep shearing) which I diluted by adding *soap suds* from the wash, I sprinkled the plants very thoroughly from a garden watering pot; I believe it killed every louse, for I did not discover one afterwards, and never had a better crop.

I have heretofore succeeded very well (in seasons of light crops of grass) by breaking up immediately after mowing, such lands as were intended to be broken up in the fall, and scattering on street sweepings, leached ashes, or any fine manure, and harrowing it in—then sowing with a drill our common flat turnip seed, which with once hoeing, and thinning by being in rows, is very little labor; and generally produces 250 to 400 bushels of roots an acre. Corn broadcast or in rows, or millet, are also very good late crops for fodder.

I have cultivated for several years the *sugar beet,* it is subject to the same attacks as mangel wurtzel, and requires the same culture. I do not think it yields as many *bushels* an acre, but it weighs 3 or 4 lbs. per bushel more; and for its very *saccharine* quality, I think it quite as valuable a root; they are both much better for *milch cows,* than any of the turnip or cabbage tribe. And requiring so very much less labor than *carrots,* (unless when the *labor of children* can be had to *weed and thin them,*) I should not cultivate the latter largely.

The *ruta baga* or Swedish turnip, I find to be very subject to being destroyed by the *cabbage louse*, and on the whole must give the preference to mangel wurtzel and sugar beets, for feeding farm stock and swine. I am, Dear Sir, yours, very truly,

JOHN PRINCE.

Jamaica Plains, 29th June, 1830.

(From the New England Farmer.)

CULTURE OF LUCERNE GRASS.

MR. FESSENDEN,—Having through your valuable journal, in successive years, recommended the culture of lucerne grass, I feel it to be a duty to state all which my experience and information enables me to do, on the subject. There cannot be a more responsible duty, than that of recommending a new species of culture. No person feels this responsibility more than I do. It is cruel, lightly, and on trivial grounds, to lead others into error. I waited, therefore, six years, before I ventured to recommend the culture of lucerne, a plant far more valuable than any species of clover.

My own experiments have been much more extensive, since I last addressed you; and they are more favorable to the culture of the lucerne, than any former ones. On land like my own, I will undertake to say, the lucerne will in common years, yield more hay to the acre, than any other grass. I this year had a piece sowed with lucerne and tall meadow oat grass, in equal quantities, that is, in such proportions as to equalize the product of each, to wit, 12 pounds of lucerne, a bushel of tall meadow oat seed. It produced three tons to the acre, made into hay on the 30th of May. The lucerne is now fit to cut again, being nearly 4 feet high, in rich spots, and three feet on an average. With me, it succeeds on all soils except moist ones. I ought to say, however, that many persons have failed in cultivating it. From what I can learn, it is best adapted to warm, gravel, or sandy loams which have a sufficient strength to yield good crops of clover the first year after manure.

Roxbury, June 23, 1830. J. LOWELL.

N. B. The hay from lucerne is far superior to the best clover which I have ever seen. It is more green than any other hay, and it retains its leaves in drying almost as well as the culmiferous grasses.

PATENT MOWING MACHINE.

A machine was exhibited in this town last week, which excited some curiosity, from the novelty of its design; it was an apparatus for mowing by horse power. It consists of an axletree with two wheels, and on the axletree is a drum of smaller dimensions, from which a band extends to the hub of another large vertical wheel, situated in front of the axletree. On the outer edge of this wheel, is placed a succession of scythes, and in front of the whole are the shafts for the horse. When the apparatus is put in motion, as the axle revolves, the band plays from the drum upon the hub of the vertical wheel which is placed upon a pair of thin runners near the ground, and it revolves with astonishing force, levelling all before it. It requires the most level ground and smooth surface, upon which it is to operate to advantage, and any irregularities of soil, render it almost useless. It will perform the labour of about twenty men in a day, on soil fitted to its operation.—*Northampton, (Eng.) Courier.*

TO DESTROY VERMIN ON CATTLE, AND TO CURE THE MANGE.

Put into an earthen vessel four ounces of flour of sulphur and a pound weight of nut-oil; place the vessel upon a moderate fire, and stir the mixture with a piece of wood, until part of the flour of sulphur is dissolved, and the oil has acquired a reddish brown colour; then remove it from off the fire, and, before it is entirely cold, add four ounces of essence of turpentine; then stir it again until it is incorporated. This preparation is neither expensive nor complicated; and when used, is merely put upon the parts infested with a feather.—*Bibliothèque Physico-Economique.*

HORTICULTURE.

CULTURE OF THE GRAPE.

J. S. SKINNER, ESQ. *Columbia, (S. C.) July 9th*, 1830.

Dear Sir,—The following is the answer to a letter I received from a gentleman in Alabama, requesting information as to my manner of making wine, &c. Thinking it possible that some of the readers of your invaluable "American Farmer" may, perchance, be glad to read it, I send it to you for insertion, if you think it can do any good. It really does me pleasure to answer all such queries; but, I confess, it takes too much of my time. I am yours, very respectfully,

N. HERBEMONT.

Copy of an Answer to a letter from a Gentleman in Alabama.

Columbia, S. C. July 9th, 1830.

Sir,—It is always with pleasure that I answer any queries relative to the culture of the grape and the making of wine. I do, then, readily answer your letter of the 20th ult., according to my limited experience, and to the best of my knowledge. You request, in the first place, to know the process as practised by myself, in making wine with the assistance of sugar. In complying with this request, allow me to begin the subject by explaining what wine is. This is the less impertinent, that liquors are often made and sold in this and other countries as wine, which have very little claim to this name, unless we give it also to beer, cider, and any compound frequently found as substitutes. Wine is the juice of the grape fermented according to certain rules, and to be sound and wholesome, it ought not to have any admixture of other substances, particularly of distilled spirits. The juice of the grape not fermented is not properly wine, and this fermentation is unavoidably necessary to the process of *vinification*. My objection to the admixture of brandy is twofold. 1st. Instead of assisting the process of fermentation, it is an obstacle to it, and 2dly, it renders wine heady, and, by affecting the nerves, is most probably the cause of many of the diseases to which those who make too free a use of spirits are most liable. Yet wine contains spirits; for these are certainly the produce of fermentation; but the spirits thus produced seem, until they have been separated by distillation, to have very different effects on the human body. In fact, it has been observed that the inhabitants of those countries where wine is almost exclusively and generally used, are much less subject to many of the diseases to which those who usually drink spirits are frequently victims, such as liver complaints, dyspepsia, &c. &c. In order, however, to make a sound, durable and wholesome wine, the grapes must have attained the highest degree of maturity possible; for, without this perfection of maturity, they contain but little saccharine matter, and this is essentially necessary. The produce of young vines is usually deficient in this, and to remedy the defect, it seems to me that the addition of sugar is allowable. Two other reasons have also induced me to add sugar to the grapes, without which a strong wine cannot be made, and unfortunately, our taste in this country has been vitiated by using chiefly, particularly formerly, wines strengthened by considerable quantities of brandy. This practice of the wine manufacturers for the American market, has probably been induced by the fear of the merchant, lest his wines should not be able to traverse the ocean without it, and be kept sound. Thus a very injurious taste was acquired, to satisfy which, the admixture of brandy was continued. The second reason is that light and weak wines cannot be made and kept without good and deep cellars, in which little or no change of temperature is experienced; and I know, as yet, no such cellars in this country; and although they can easily be made, the expense is considerable; to which must be added all those necessarily unavoidable in new undertakings and numerous experiments.

I have then added sugar to my *grapes* in proportion to the strength desired in the wine. The grapes, then, being as fully ripe as possible, my aim is to have them gathered in as short a time as possible, that the first gathered may not begin to ferment, while the others that are to be made into wine with them, are still in the vineyard. A number of hands proportioned to the quantity to be gathered in the course of one day, or two days at most, are to be procured. Each being provided with a pair of scissors and a basket, proceed to gather the grapes, taking care to cut off all the rotten or the green berries that may be among the ripe and sound ones. As soon as gathered, they are to be mashed and bruised, so that not one berry, if possible, remains uncrushed, taking care, however, that the seeds be not broken, as this would give a harsh and bitter taste to the wine which nothing but age could cure, and that very imperfectly. As soon as the grapes are mashed, and before the fermentation has commenced, I try the juice with Beaume's "Areometer" or "Pese sirop," to ascertain the quantity of saccharine matter it contains; which, let us suppose, is 8 or 10 degrees. I then add enough of the best, dry, brown sugar, so as to raise the instrument, when immersed in the juice thus sugared, to 13 or 14 degrees, which, I think is fully sufficient to make a strong and durable wine. Those who have not this instrument may use a hen's egg which will rise in the must or juice, so as to have one end just out when a sufficient quantity of sugar has been added. The quantity I usually find necessary to add is from half a pound to one pound per gallon of juice, supposed to be contained in the vessel. This being done, and the whole in a vat not more than two-thirds full, I cover it with boards or cloth, and let it ferment in this state a shorter or longer time as the temperature of the air is more or less high. Thus when the thermometer is from 80° to 90° or thereabouts. 24 hours I think fully sufficient; when 60° to 75°, 2, 3, or 4 days. At all events, I never wait until the crust formed by the skins and woody part of the bunches, and which rises to near the top of the vat, falls of its own accord. During this process of fermentation, I have the above named crust, called the "chapeau" or "cap," broken and the whole contents of the vat well stirred and mixed about twice a day. After this, by opening the spigot at the bottom of the vat, I let out the juice as long as it will run. When there is no spigot or cock at the bottom of the vat, the purpose is answered by sinking a basket in the middle of it, and dipping the clear juice or must with a suitable vessel. Before it is put into the casks ready to receive it, it is proper to let the must pass through a wire sieve to retain any seeds or skins that might be in it. The casks are then filled to about 3 or 4 inches of the bunghole—but I am going too fast. The must that is thus left in the vat is then carried to the press, and the juice thus obtained, may either be mixed with the rest, or kept separately. When only a small quantity of wine is made, it is not worth while to keep them separate, although the must obtained from the press is somewhat inferior, being more harsh than that taken from the vat. The juice or must, being in casks not full by 3, 4, or 5 inches according to their size, I take 3 or 4 grape leaves to cover the bunghole, and keep them down by a double handfull of moistened sand. As the fermentation goes on, these leaves and sand act as a valve which rises and falls as it is more or less violent. This continues for 2 or 3 weeks, during which time the casks receive occasionally an addition of must, kept in smaller vessels for the purpose, filling them more and more as the fermentation subsides. When, by applying my ear to the cask, I no longer hear the bubbling or frying noise of fermentation, I take away the leaves and sand, fill the casks to about one inch, and put a bung in the hole, without driving it very tight, and for greater security, it is necessary to bore a gimblet hole near the bung. This is stopped with a peg that can be taken out occasionally to let out the gas that has accumulated. Without this precaution, the cask, unless it were very strong, might burst. It is finally bunged tight, and 2 or 3 months afterwards, taking advantage of a clear frosty day, the wine, as it is now called, is racked off the first lees, and put into other and very clean casks duly prepared by being fumigated with a sulphur match. Wine made in this manner will keep any number of years perfectly sound and improving. The best I ever made is the produce of a grape called here "Madeira." It is a very great bearer and a most juicy grape; but it has the disadvantage of being, in some situations, subject to rot, some years much, at other times scarcely at all, and sometimes not at all. When this last is the case, very great crops are made, and it is a very superior wine. It has hitherto commanded $2 per gallon, when only 4 or 5 months old. It resembles Madeira, particularly that called the "juice of the grape," more than any other wine. It is very wholesome, agreeing well with both stomach and head, which last is never made to ache by it. This quality, I chiefly attribute to its having no brandy in it. As for the notion that some persons entertain, that wine cannot be made without brandy, it is perfectly absurd. Distillation is comparatively a new invention, and I should like to know where our great ancestor *Noah* purchased brandy to make his wine with!—cuttings and rooted plants of this Maderia vine, as also of many other kinds may be had here in considerable quantities at a very moderate price. I have made wine of several other kinds of grapes, some of which are very good; but none equal to my Madeira. I never had the "Schuylkill Muscadel" till this spring, when I received cuttings from several quarters, and particularly from a correspondent at Cincinnati, Ohio, who also enclosed a bottle of the wine made of it, as he thought, in a very imperfect manner. The wine is pretty good. "It was sound," and gave indications that, with proper care, it might make a good wine. It was without sugar or brandy, and yet was pretty strong, and I did not observe that "unpleasant acerbity" about it which you mention. If the grapes are not fully ripe, no sugar that you can add, so that it undergoes the fermentation, will ever deprive the wine of the acidity produced by the *greenness* of the fruit. It will only make it strong enough to prevent its passing to the acetous fermentation, and easily turn to vinegar. Of the Scuppernong wine, I have seen very little that was good; yet from the great sweetness of the fruit, I should think that, if it were properly made, it would make a good wine: but those that make it, seem to prefer making it without the trouble of attending to the fermentation, and make a sort of beverage, palatable enough, except the flavour of peach or apple brandy. This grape does not do very well with me, though it grows luxuriantly enough; but it does not bear a great deal, and the berries, when ripe, drop from the vine, so that it would take several weeks to gather the crop of one vine. I never have tried to make wine of it; but I wish I could hear of some one's doing it, *secundum artem*. You express a doubt of the French method of pruning and of making wine being suitable to our soils and climates. Each kind of grape, each particular soil and climate require probably some deviation from some particular standard; but, I believe the general principles of the French on this subject are undoubtedly good, principally with respect to the making of wine; for this subject has attracted the notice and labours of very scientific men in that country. Every province, and even small sections of them, have practices of their own, many of which are, no doubt, founded on prejudice; but it is fair to presume that others are grounded on experience, and one fact is worth all the hypotheses on this subject.

It is certain, as you suggest, that short pruning occasions in some kinds of vine their putting out many and strong side shoots or "*interleaves*." Experience alone can correct all these defects.

If you adopt my method of making wine, I beg you will inform me of your success. In the mean time, I am respectfully, sir, your obedient servant,

N. HERBEMONT.

N. B. The drought is so severe here that many of the corn crops are totally destroyed, and I have this day directed my overseer to cut down one field, (the half of my crop) of about 15 acres of corn, and plant cow-peas in its place. I fear this destruction is very extensive.

COW CABBAGE.

Charlestown, (Va.) July 7th, 1830.

J. S. SKINNER, Esq.

My sister, who is a subscriber to the "American Farmer," has this day secured her tree cabbage seed, and if you desire it I can send you a pound for distribution. I send you enclosed two slips from the newspaper printed in this place, one of which is a communication from her. From what I have seen of this tree cabbage I am inclined to think it will be found a very valuable plant in the southern states. I cut with my own hands a bushel of table greens at one time, from one stalk.

If you are not supplied with the seed, and desire to have them, please drop me a line, and I will send them on to you by the first *private* opportunity.

Your obedient servant, G. W. H.

[We shall certainly feel indebted for the seed, as we do for the above communication, and will endeavour to make both useful by the same means—*distribution far and wide.*]

(From the New York Farmer.)

In the month of May last, I had the favour of receiving from Doctor *James Mease*, of Philadelphia, a parcel of the seeds of the cow cabbage, (Cesærian kail) which he had recently imported from France. My respectable friend informed me that "in the Provinces of Mayne and Brittany, where the variety is extensively cultivated, chiefly for cattle, the stalks live four years and grow ten feet high. 'The plants,' he observes, 'may stand out all winter in Europe, but as the cold of the Old Colony might possibly kill the plants, they should be defended by a sheaf of straw well secured at the top. This trouble would be repaid by the early food afforded by the leaves in the spring to cows." The plants in this town the last summer, from the seeds sent by Dr. Mease, discovered a very rapid growth, and attained the height of from four to five feet before checked by frost. Little care was taken of them, and all that were exposed, without defence, were killed by the winter frost, though they yielded not till near the close of winter. Fortunately, one of my neighbors, from a curiosity to ascertain their worth, took up his plants in autumn and put them into his cellar.—They flourished well, and he cut the leaves and young sprouts several times in the winter and found them excellent for table greens. Vegetation in the plants was not checked while in the cellar, and in April he transplanted them into his garden, where they have flourished luxuriantly, throwing out new sprouts in great abundance, which he has cut several times. *One of the plants is now six feet high,* and its sprouts to the summit, are covered with yellow blossoms from which a large quantity of seed will be produced. This plant appears to be endowed with surprising prolific powers, and from the experiment just related, our farmers have encouragement to cultivate the new article according to your recommendation in the New England Farmer.

Respectfully yours,
JACOB TRACHER.

Plymouth, (Mass.) May 8, 1830.

Sixty plants are said to afford sufficient provender for one cow for a year, and as the side shoots only are to be used, it lasts four years without fresh planting. A square of 60 feet will contain 256 plants, four feet apart, or 16 more than 4 cows require for a year's provender without the aid of any other food.

(From the Virginia Free Press.)

COW CABBAGE.

MR. EDITOR,—I have noticed in the last Free Press and Repository, a communication copied from the N. Y. Farmer, signed by James Tracher of Plymouth, (Mass.) on the importance of cultivating what he calls the "Cow Cabbage, or Cesærian kail," the seed of which was imported by Doctor James Mease from Brittany in France. Through the politeness of the post master in Charleston, I too received, in May, 1829, some of the same kind of cabbage seed (spoken of by Mr. Tracher) from Doctor Mease of Philadelphia. The Doctor in his communication to the post master at Charlestown, gave the plant the name of "Tree Cabbage." Living as I do in a more southern climate, and having been more successful in raising the Tree or Cow Cabbage, than either Mr. Tracher or his neighbor, who "took up his plants in the autumn and put them into his cellar," I will, with your permission, make known, through the columns of your useful paper, the progress I have made in cultivating this new kind of cabbage, called by my old gardener "wild cabbage."

I sowed a few of the seeds in my garden early in May, 1829, the seed germinated quickly, and produced thirty plants, twenty of the plants I transplanted in the first week of October following, placing them two and a half feet apart—eight of the plants I did not remove, suffering them to remain the same distance apart of those I transplanted—all remained through the winter without shelter of any kind, and only two stalks killed by the frost. Those not transplanted are most luxuriant, some of them are at this time nine or ten feet high—those transplanted are from four to five feet high. Mr. Tracher speaks of this cabbage being very valuable as provender for cows. That may be so, I have not tried it in that way, but think it may answer a good purpose: I can speak with certainty from experience, and say, that it is very valuable for table greens, called in Virginia "sprouts."—It was ready for use last spring before any other greens—one stalk will produce more than a bushel of sprouts.

Mr. Tracher speaks of this cabbage living four years. Doctor Mease, when he transmitted the seed, said they would live three years. I cannot say how long they may live. This is only the second year since those in my garden were planted; they are now loaded with seed, and the stalks appear on the decline.—I rather incline to the opinion it will only last two years, but am by no means positive, as there are at this time among those in my garden, many young shoots springing from the roots of the old stalks. The only apology I have to offer for troubling you with this communication, is, that on reading your paper of last week, it caught my eye that this cabbage had been noticed both in the "New England Farmer," and "New York Farmer." The New England Farmers are encouraged to cultivate this new article after the discovery that the plants must be kept in a cellar in the winter. I think keeping the plants in a cellar a poor business, and pretty much like the Indian's gun; but here, where they will stand the winter, I do think it will be found a most valuable plant, and farmers may profit by it—they cannot lose.

A SUBSCRIBER.

Jefferson Co. Va. July 1830.

STRAWBERRIES.

J. Buel, Esq. states in a communication to the Albany Argus, that he picked a pail of strawberries in his garden, which had an average circumference of three inches each. Some of them were four inches, and one four and a quarter inches. Sixty-three, divested of their hulls, weighed a pound. They are the Methven strawberry, and were procured in 1825 from the London Horticultural Society. Of another kind, the Downton, procured at the same time, the berries are frequently 4½ inches in circumference.

RURAL ECONOMY.

HORSE MILLS.

Bush, Harford County, Md.
July 12, 1830.

J. S. Skinner, Esq.

Sir,—Your correspondent from Sampson County, N. C. wishes for some information, relative to small saw and grist mills, by which the inconveniences attendant on large bodies of stagnant water, may be avoided. In answer, I beg leave to state that positive facts are ever preferable to speculative probabilities, and in regard to grist mills, I felt every day more convinced, that the one for which I obtained a patent, in 1827, will obviate every difficulty. I will warrant it to grind any kind of grain equal in quality to any merchant mill in the country, and to grind five bushels of good Indian meal per hour, with a four horse power; for more particulars, I would refer your correspondent to No. 37, Vol 11, of the American Farmer. Some of my mills have been in constant operation since January, 1827, which are now as good as new, much improved in speed and have been worked twelve months without picking. The space occupied by one is very small, it may be easily attached to cotton gins, threshing machines, &c. As I guarantee all I have asserted, I have considerably underrated its powers.

The price is one hundred dollars, and if the number required would remunerate me for my journey, I would be on the spot, and attend to their erection myself.

Respectfully, yours,
W. W. Forwood.

P. S. Communications post paid will receive prompt attention.

THRESHING MACHINE.

Chambersburg, (Penn.) July 13.

We witnessed, on Friday last, the operation of a new Threshing machine, which we think possesses decided advantages over any other yet known in this part of the country. The outward appearance of the machine is quite simple. It occupies but little more room than a common windmill, and requires two men to attend it, one to give it motion by the turning of a crank, and the other to supply the grain, which it extracts from the hull with singular rapidity and cleanness. Part of a bundle that had been threshed in the usual way, and thought to be well done, was passed through the machine and half a pint of grains extracted! Two men will do as much with this machine in an hour as they can in a day with the flail. The price we understood to be about thirty dollars.

[The most efficient and perfect in its operation that we have seen was at work some weeks since at that most productive and splendid farm, Harewood, on the Gunpowder river.

The machine threshed, perfectly clean, wheat which had been soaked in water to make the operation as difficult as possible—not a grain was to be found in a head, nor was a grain broken in passing through the machine.]

LADIES' DEPARTMENT.

Oriental Tales and Bon Mots.

Translated for the American Farmer.

THE SULTAN'S SLIPPER.

A Sultan saw from the terrace of his palace, a lady of transcendant beauty. The sight of her charms inflamed him; he called one of his slaves to demand if he knew her.

Sire—said the slave, is it possible that your majesty has not heard tell of Chemsennessa* Cadoun, wife of Vizir Feirouz; she passes with justice for the most beautiful woman of the city, and her intelligence equals her beauty. These words inflamed the Sultan still more, and he resolved to make known to this marvellous beauty the sentiments with which she had inspired him. He must manage to remove a husband—and by husband, in the east, is understood a man exceedingly jealous. The Sultan sent to seek Feirouz, and handing him a paper said—go Vizir; execute the orders enclosed in this, and return to render me an account of the success of your mission.

Feirouz returned to his house, took his arms, and departed with so much precipitation that he forgot, upon his sofa, the orders given him by the Sultan.

The prince, in his impatience had scarcely learned the departure of Feirouz, than he flew to the palace of the Vizir; it was opened by an eunuch, who introduced him to the apartment of his mistress. What was her astonishment on seeing the monarch before her? Trembling, overcome, she scarcely dared to raise her eyes; recovering a little from her alarm, she penetrated the design of the Sultan: but as she was sagacious as beautiful, she wished not to give him time to explain himself, and pronounced two Arabic verses *impromptu*, to this effect:

"The lion believes that he would degrade himself in picking the leavings of the wolf; and that king of animals disdains to slake his thirst in the stream which the dog has soiled by his impure tongue."

These words, readily understood by the Sultan, subdued at once, all hope of success. He retired all confused, and his chagrin made him forget one of his slippers.

In the meantime Feirouz, after having searched in vain for the order given by his prince, recollected that he had left it on his sofa; he was obliged to return to recover it—the slipper of the Sultan, which no one had perceived before him, taught him but too clearly the designs of his monarch, and the motives that prompted him to send him away. Tormented at the same time, by his pride and his jealousy, he sought the means of repudiating his wife, without risking the loss of his dignity: he commenced by rendering an account to the king of the commission he had given him: on his return to his home he said to his wife, that the Sultan had made him a present of a very beautiful palace, and that he might be left at leisure to furnish it, it was necessary that she should go to the house of her father. He gave her, at the same time, a hundred pieces of gold.

Chemsennessa, having no cause for self reproaches, was very far from suspecting the truth; she obeyed without a murmur; many days passed without Feirouz appearing: an absence so long and unusual astonished his wife; she could not conceal her distress from her brothers—they went to find Feirouz—"acquaint us," said they "with the motives of your conduct to your wife; if she is guilty, far from taking part with her, we will wash out with her blood, the outrage she has done you."

The Vizir, without wishing to enter into any explanation, answered that he had paid to their sister the portion agreed upon at their marriage, and that she had nothing more to demand of him—irritated at this answer they appealed to the law. The usage of the country required in such cases that the Sultan should assist in rendering judgment.

The brothers of Chemsennessa said to the judge: "Sire we have rented to Feirouz a delicious garden; this charming place was a terrestrial paradise; when put into his hands it was surrounded with high walls, and planted with beautiful trees, set out with flowers and charged with the finest fruits;—he has destroyed the walls, he has ravished the tender flowers, and consumed its exquisite fruits, and now he would surrender to us this garden, despoiled of all that rendered it fragrant and delicious." The judge having ordered the Vizir to make his defence; "it is in spite of me," said he, "that I renounce the enjoyment of a spot which was so dear to me; but one day that I walked in an alley of this garden, I perceived there the trace of the foot of a lion; terror seized my soul, and I judged it better to yield up the garden to this terrible animal than to expose myself to his wrath."

The Sultan who was present, addressing himself to the Vizir, said to him:

"Re-enter your garden Feirouz, you have nothing to apprehend; it is true that the lion has placed his foot there; but he has not been able to touch any of its fruit, and he went out of it filled with shame and confusion: there was never a more beautiful garden, nor one better guarded or sheltered from attaint."—These words, enigmatical to all who were not interested, re-assured Feirouz: he reclaimed his wife, and loved her more than ever, since he knew the difficult trial to which her virtue had been exposed.

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[*] This name in Arabic signifies the sun amongst women.

In copying the following whimsical lines from a London paper, we disclaim all participation in maxims which are better adapted to Turkey than to this country.

A GOOD WIFE.

A good wife should be like three things: which three things she should not be like:—First, she should be like a snail, always keep within her house; but she should not be like a snail, to carry all she has upon her back. Secondly, she should be like an echo, speak when she is spoken to; but she should not be like an echo, always to have the last word. Thirdly, she should be like a town-clock, always keep time and regularity; but she should not be like a town-clock, to speak so loudly that all the town may hear her; all which, that it may be better remembered, has been thus neatly turned into verse:—

A wife, domestic, good, and pure,
Like *snail* should keep within her door;
But not like *snail*, in silver track,
Place all her wealth upon *her back*.

A wife should be like *echo* true,
Not speak but when she's spoken to;
But not like *echo*, still be heard
Contending for the *final word*.

Like a *town-clock* a wife should be,
Keep *time* and *regularity;*
But not like *clock*, harangue so clear,
That all the town *her voice may hear*.

MISCELLANEOUS.

Consumption.—Doctor Cotterau, a French physician of eminence, has submitted to the inspection of a committee, delegated by the Royal Academies of Sciences and of Medicine at Paris, his newly invented apparatus for conveying chloruret of lime in a gaseous form into the lungs. The well known effects of the chloruret upon a morbid part, and the expectoration of the tubercles detached by its influence, in certain recent experiments, promise the happiest results from its application in this dangerous complaint. The particular object of this apparatus is the introduction of any given quantity of the gas into the lungs with facility and precision, and we are glad to find that the gentlemen appointed by these learned societies to investigate its pretensions have made a most favourable report of its merits.—A Paris paper contains a long article on this subject, which is one of painful interest to the natives of Great Britain. We are a little sceptical as to the effects of the chloruret so used, although on chemical principles it appears reasonable. It is worth inquiring into; and at a time when even the experiments of M. Chabert on dogs excite interest, we cannot imagine that an inquiry of this kind will be neglected. [*London pa.*

The greatest friend of truth is time, her greatest enemy is prejudice, and her constant companion is humility.

THE FARMER.

BALTIMORE, FRIDAY, JULY 23, 1830.

CACTUS GRANDIFLORA.

On Saturday evening last, we were invited by Mr. Bastian, the French Gardener, to view his *Cactus Grandiflora*, or Cereus, expand its flowers that night. We had frequently seen the Triangularis, and many other varieties of the Cactus family; that keep

> "Their odour to themselves all day;
> But when the sunlight dies away,
> Let the delicious secret out,
> To every breeze that roams about."

But this was superior to them all. There were six flowers on the plant in full bloom, presenting one of the most magnificent spectacles of the kind imaginable—magnificent without ostentation; rich without gaudiness; and, expanding their lovely corollas, just enough to display their exquisite charms and no more.—Each flower at a short distance, presented a disk of nearly a foot diameter, with a broad rich circle of bright orange surrounding a beautiful alabaster urn, the bowl of which was studded with a row of its beautiful light green stamens with their golden anthers, and the centre occupied by the lovely golden capped pistil, with her six hundred adoring admirers—all forming a combination of richness, delicacy and loveliness, unequalled by any other flower we ever saw. On a nearer view, the exquisitely formed inner chamber was seen, with its delicate light green drapery—seemingly filled with an etherial fluid, formed of the liquid elements of its colors, and serving as the bridal chamber of the queen of sylphs. The beauty of the flowers was only equalled by their delicious fragrance, in the distribution of which, they were as profuse as they were liberal in their rich display—filling the house and even the air of the garden for fifty yards around, to such a degree, as to suggest the idea that the visiter was in the midst of a field of vanilla.

The habits of this plant are singular. It blooms only in the night, gradually expanding its lovely corolla from seven o'clock in the evening, until about ten o'clock, when it is in perfection, and then closing its calyx before the morning. Darwin, in his "Loves of the Plants," has the following fine passage on this flower:—

> Nymph! not for thee, the radiant day returns,
> Nymph! not for thee, the golden solstice burns,
> Refulgent CEREA!—at the dusky hour
> She seeks with pensive step the mountain bower,
> Bright as the blush of rising morn, and warms
> The dull cold eye of midnight, with her charms.
> There to the skies she lifts her pencil'd brows,
> Opes her fair lips, and breathes her virgin vows;
> Eyes the white zenith; counts the suns that roll
> Their distant fires, and blaze around the pole;
> Or marks where Jove directs his glittering car
> O'er heaven's blue vault,—herself a brighter star.
> —There as soft zephyrs sweep with pausing airs
> Thy snowy neck, and part thy shadowy hairs,
> Sweet maid of night! to Cynthia's solar beams
> Glows thy warm cheek, thy polished bosom gleams.
> *In crowds* around thee gaze the admiring swains,
> And guard in silence the enchanted plains;
> Drop the still tear, or breathe the impassioned sigh,
> And drink inebriate rapture from thine eye.

After the company had withdrawn, Mr. Bastian kindly presented us with two flowers, one of which we dissected for the purpose of a minute description—supposing that, although some of our readers may be familiar with it, many would be pleased with the detail.

The diameter of the whole calyx was 10¾ inches; that of the corolla, or true flower, 6¼ inches. From the orgin of the petals, there was a funnel-formed tube, six inches deep, and one inch and three quarters diameter at the top, three inches and a quarter of which was visible, and of a delicate light green colour. The pistil was 9¾ inches in length from the germen to the stigma, the lower extremity of the style, light green, and the upper white; the stigma was divided into 21 parts, or lobes, of a light yellow. The stamens, from their lower origin at the bottom of the tube to the highest anthers, extended 7¾ inches; there were two distinct families of stamens, the one originating at the bottom of the tube, and the other at the origin of the petals; the first were 5¼ inches in length, the latter 3 inches. The petals were 3¾ inches long, and 7-8ths of an inch broad in the middle. The calyx from the germen, to the top of the leaves, was 10 5-8 inches. The calyx leaves were 4 inches long, and of a bright orange colour; petals, pure white; styles light green below, terminating in pure white at the anthers; which were light yellow. There were 82 calyx leaves, 28 petals, 623 stamens, 21 parts in the stigma, and 623 anthers; in all thirteen hundred and seventy-seven distinct parts in the flower, exclusive of the calyx leaflets.

Mr. Bastian has a fine collection of Green house and hardy plants, fruit and ornamental trees, shrubbery, &c. We observed half a dozen pines, with their apples in various stages, one or two nearly ripe. We should think, in the absence of a public garden professedly for such an object, a walk to Bastian's would be well remunerated.

Flowers seem to have been scattered by nature over the world as a medicine to the mind—to give cheerfulness to the earth, and furnish agreeable sensations to its inhabitants. The uncultivated savage, in the joy of his heart binds his brow with the spontaneous flowers of his native woods; whilst their cultivation spreads in every country with the spread of civilization.

Horace it seems could not sit down to his *bachelor's* glass of wine without his *garland.*

> "I tell thee boy that I detest
> The grandeur of a Persian feast,
> Nor for me the Linden's rind
> Shall the flowery chaplet bind,
> Then search not where the curious Rose
> Beyond his season loitering grows,
> But beneath the mantling vine
> While I quaff the flowing wine,
> The Myrtle wreath shall crown our brows,
> While you shall wait and I carouse."

The love of flowers is with ladies the almost invariable accompaniment of a good taste and a cultivated understanding; happy then for those of Baltimore, that in the gardens of *Messrs. Bastian and Feast,* every gallant beau may find an exquisite bouquet for the fair object of his devotion. The most delicate offering to those we love is a nosegay of beautiful flowers, such as, be it well known to the young ladies, any gallant admirer may procure at these gardens, any day in the year—and, after all, what ornament so handsome, and so chaste, and so sweet, for the bosom or the head, as *natural flowers?*

RUTA BAGA, OR SWEDISH TURNIP SEED.—A gentleman, who has cultivated the Ruta Baga for fifteen years, without failing in a single instance to obtain a good crop, and who has in the course of that time fully tested the value of the root as food for stock, and found it superior to any other, has with his characteristic liberality deposited at the office of the American Farmer, a large quantity of the seed for general and gratuitous distribution. Our agricultural friends, therefore, who are willing to make trial of it, are requested to call or send for some of the seed.

The mode of cultivating Ruta Baga, differs in no respect from that of common turnips, except perhaps in sowing the seed more thinly. The gentleman who presented the seed above mentioned, considers from the middle to the last of August, the best time for sowing the seed in this neighborhood. He has sowed them after small grain, and obtained good crops, by manuring and ploughing in with the stubble; the dung used should be well rotted, or spent ashes answer well. He sows broadcast, and treats them by hoeing in the same manner as the common white turnip. They should be left at the last hoeing, at least a foot apart, but more distant will be better if the ground be *rich and in good order*, as it ought always to be; the tops will spread very luxuriantly. In March, 1829, this gentleman left at our office a couple of these turnips which had remained in the open ground all winter, and were then in as sound a state as they were the fall before. This is also an important consideration, as green food in winter is of great value for milch cows, as well as other stock. The gentleman alluded to does not consider the milk or butter in the least injured in flavour by the Ruta baga; on the contrary, he thinks, both improved, not by the addition of any peculiar flavour, but by increased richness; the colour of the butter is certainly very much improved. The ease of cultivation and great yield of crops are additional incentives to its adoption; and to these may be added another of some importance to gardeners and others restricted in ground—it can be raised as a second crop on the ground occupied in the spring by early vegetables, such as peas, early green corn, &c. As high as five hundred, and even seven hundred and fifty bushels of Ruta baga turnips have been raised to the acre. Among other excellent papers to be found in the previous volumes of the American Farmer, on the cultivation of Ruta baga, we would refer to one by Judge Buel, of Albany, page 361, vol. 6. We know of nothing more improvident and reproachful in the management of Southern farms, than the almost universal failure to take measures for a supply of roots and vegetables, such as turnips, mangel wurtzel, ruta baga, pumpkins, &c. for *winter* food for their stock—at all events for their *milch cows.*—These they leave in most cases to live on dry corn husks, dry straw, dry leaves—in a word dry and empty bellies, without a covering to protect them from the peltings of the pitiless storm, and without even a regular supply of pure cold water; and yet when this great manager, this Lord over all around him, takes his seat at the breakfast table without a plate of fresh butter, or a pot of fresh cream, ten to one, if he does not look sour, and insinuate the reproach of bad management against all but——himself!

THE CROPS.

J. S. SKINNER, ESQ. *Cambridge, July* 18, 1830.

Dear Sir,—The unusually fine season recovered in a great degree, the wheat crops in Dorchester, which had been most imminently attacked by the fly, and they may be denominated good; mine and a few others which escaped the fly, are unusually fine; but the drought and bud worm are destroying our corn crops, to the most lamentable extent. I really believe, though I am by temperament too sanguine, generally, that we cannot, possibly reach a half a crop, and without speedy assistance from the clouds, of which there are at present no visible signs, not the half of a half.—The bud worm, which was almost unknown to us a few years ago, is annually multiplying, and seriously threatens the annihilation of one of our most valuable staples; the corn grub, or ground worm, as it is sometimes called, can be, from the present knowledge of its habits and character, quite effectually guarded against; but, of the bud worm, nothing is known. I have made frequent attempts to preserve it for transformation into its final or parent state; but it has always perished in the original "larva" in which I had found it. I hope that some gentleman will make the attempt with more success, and report through your paper, the parent of this insect, and its habits, by which we may be enabled, perhaps, to defeat considerably its mischief.

I am, Dear Sir, yours truly,
JOSEPH E. MUSE.

THE SEASON AND CROPS IN NORTH CAROLINA.

Extract of a letter to the Editor, dated Raleigh, N. Carolina, July 8th, 1830.

The weather here for about six weeks past has been intensely warm, and little or no rain, crops of corn have suffered greatly. I do not know that cotton has, as that seems to delight in a warm sun. The wheat crop, as you may have seen by our different local prints, is a good one, and has been well secured.

As regards fruit of different kinds, there are plenty of peaches, but I doubt if the long and continued drought has not injured them. Some of my country acquaintances, in fact, think that when we shall come to have hard showers, this fruit will drop or fall off. Apple and pear trees, did not hit *this* season; what was the reason I cannot tell—they did not even so much as blossom; I learn that the same is the case, far west, as high up as the mountains. The "cotton crop immediately in this vicinity is highly promising, and I have no doubt will yield abundantly; a thing which, whether it be to be desired or not, is a problem, I leave for the solution of agricultural economists."

[The following advertisement announces the sale of one of the largest and most perfect flocks of fine wool sheep, that has ever been reared in any country.

It was from this flock that a ram was sent to the Maryland Cattle Show to bear off the prize from imported Saxony sheep; and however we lament that they should pass out of the hands of those who have by very superior skill and management brought them to such a high degree of perfection; it is yet gratifying to know that in this flock there is the means of preserving to the country a race of valuable animals, accustomed to our climate, and possessing every requisite that can be sought for in animals destined to produce the material for cloth of superfine quality.]

Prime Sheep For Sale.—The celebrated flock of Full Blooded Merino Sheep, consisting of about 2,500, recently owned by *W. R. Dickinson*, Esq. will be offered for sale at Public Auction, on the 10th day of September next, at Steubenville.

This flock, which is said to be equal, if not superior to any other in the United States, will be sold entire, or in lots to suit purchasers.—Terms Cash.

D. L. Collier, *Trustee.*

Steubenville, Ohio, July 1, 1830.

☞The wine growers of Champagne and Lorraine, have a custom of giving the wines of each year, a name derived from the most remarkable event or person between the two crops. They have baptised the wine of 1829 as *Vin de Bourdonnaye,* because it will be detestable, and every body knows beforehand that it will not be kept.

Exports of Cotton.—The Savannah Georgian contains a comparative statement of the exports of Cotton of the present and past seasons, from Louisiana, Alabama, Georgia, and South Carolina. It appears that during the six months ending April 1, 1830, and the same period, 1829, the number of bales exported was as follows;

	To England.	*France.*	*Elsewhere.*	*Coastwise.*	*Total.*
1830,	222,893	107,029	20,209	121,231	472,465
1829,	238,492	69,851	11,923	96,256	416,522

In the exports to England there has been a decrease of 15,599 bales, while the total increase this season is 55,933 bales.

The quantity of Sea Island Cotton exported during the same periods, is as follows:—

	To Liverpool.	*Havre.*	*Other Ports.*	*Total.*
1830,	5,270	2,132	979	8,381
1829,	19,325	2,831	1,036	23,192
Decrease,	4,055	709	57	14,811

The stock of the Sea Island at present on hand, is at Savannah, 4,533 bales, and at Charleston, 6,784 bales: total 11,317 bales. [*Nat. Jour.*

What abundance crowns the labors of the husbandman this season! Frederick county, in Maryland, it is stated, will yield wheat enough for 200,000 barrels of flour. The produce of one county alone in New York, (Dutchess) is estimated as sufficient for the whole population of the State. Plenty every where smiles on the land—east and west, north and south. The Georgia Patriot says, "there never have been known such crops of small grain in the State, as it had been blessed with the present season. The wheat and rye have generally been reaped and saved. The crop of oats is very heavy and will soon come in. Wheat is worth about 50 cents per bushel, and Indian corn has already been offered at 12½ cents. [*Nat. Intel.*

☞The following illustration both of the process of fermentation and of its stages, is given in the third volume of Dr. Lardner's *Cabinet Cyclopædia*:—"If some grape-juice be left to itself, at the ordinary temperature of summer, it soon begins to suffer remarkable changes; the liquor becomes muddy; an internal motion takes place; the temperature perhaps rises; a bubbling noise is heard, owing to the breaking of minute air bubbles at the surface; and the whole appears not only to boil, but it tends to boil over, its bulk being swollen by the envelopment of so many air bubbles. On account of this resemblance to boiling, the process is called *fermentation*, from *fervere*, to boil. Meanwhile a dense froth, composed of these bubbles involved in viscid matter, rises to the surface, and after remaining there some time, it parts with the involved air which floated it, and the viscid matter subsides to the bottom. At length the liquor remains tranquil, and soon after becomes transparent. The viscid matter possesses the property of exciting fermentation in certain other substances not spontaneously disposed to such a change, and hence it is called *ferment*, but commonly *yest* or *barm*. At this period it is found that the grape-juice has lost its natural sweetness; the taste becomes strong, stimulating, and astmatic; and it acquires the singular property of intoxicating, which it did not before possess In short, it has become *vinous*, it is wine; and the whole series of phenomena constitutes the *vinous fermentation*. An *ardent* or burning-tasted spirit may be now extracted from the vinous liquor, and the ardent spirit, when very strong, is called by chemists *alcohol*. After these changes, the fermented liquor being preserved for some time, corked in bottles if weak, or partially exposed to air if strong, and the temperature being maintained at about 75 degrees, a new set of phenomena will take place. Provided the quantity is large, a hissing noise is heard, and the temperature rises perhaps 10 or 15 degrees. A little gas is given out; and the liquid exhibits an intestine but inconsiderable motion; floating shreds make their appearance, and at length partly subside and partly collect into a gelatinous cake, which continually thickens. The liquor is now transparent; the vinous flavour and the alcohol have disappeared; and the taste has become extremely sour; in short, the wine is converted into vinegar, called in Latin *acetum;* and although the obvious symptoms of fermentation are inconsiderable, the process is called the *acetous* fermentation. If vinegar be kept for a length of time, its surface becomes covered with a green mould, which constantly increases; its acidity gradually disappears; its peculiar pungent acid smell gives place to a highly disagreeable odour; and, as this last effect proceeds from the rottenness (*putredo*) of the vegetable matter present, the whole change is called the *putrefactive* fermentation."

☞An apparatus, called the Petrisseur, was lately invented by a M. Cavallier, of Paris, for making bread without the process of kneading with either the hands or feet. It is very simple in its contrivance, is not expensive, and has been found to answer the purpose admirably.

WORK ON HORSES.

Carter and Hendee have just issued from the press, a work entitled "Beauties and Defects in the figure of the Horse." Something of this sort has ever been needed, and many will be ready to extend their acknowledgments to the publishers, in addition to the price of the volume, for furnishing them a desideratum, *so much desired*. Treatises, we know, have been written on the peculiar nature and characteristic qualities of this truly invaluable animal; but they have been compiled by persons unacquainted with the use of language, to enable them to impart their knowledge clearly; or they have been thrown together by pretenders who were ignorant of the general structure even, of the noble beast.

We have had opportunity to examine this new work, and believe it better suited to the wants of every class of the community which profits by the immediate services of the horse, than any publication which has hitherto appeared. The descriptions are not only given in clear, unequivocal language, and the points accurately defined, but the whole is illustrated by a series of drawings, as many in number nearly, as the pages of the volume, showing every shape, and distinguishing mark, whether of beauty or the reverse, that can be of service to the buyer or master.

[*Boston Traveller.*

☞Sugar from Beetroot.—The French appear determined to carry on this manufacture: the quantity now made in France is about 4,000 tons a year. The cost is as yet considerably greater than that of West India sugar; but the process is very recent, and the parties expect to make improvements which will materially reduce its expense.

LATEST FOREIGN NEWS.

London dates to the 8th June, have been received at New York, since our last. The king was still alive, but his death was considered inevitable, and looked for hourly—the next arrival will most probably announce this event, and furnish some interesting intelligence from the French expedition to Algiers.

The news from the continent in the papers brought by the Salem is of no great importance. The extracts from the French journals show the public mind in that country to be in a very discontented and excited state. It is thought that the elections will terminate in favor of the liberal party.

The Porte concluded on the 7th of May a treaty of commerce and friendship, by which the Americans are allowed the passage into the Black sea, and a full and equal participation in all the privileges extended to the European nations.

Portsmouth, June 5.

Nothing has been heard of the French expedition since its sailing, excepting that of the frigate Da Duchesse de Berri, having seen the fleet two days after its sailing, 20 leagues S. W. of Toulon, then having a fair wind.—On the landing of the army a newspaper will be established with the title of "L'Estafette d'Alger."—The Algiers Express: this will supply the news of the army, and will be edited by M. Merle, Secretary to the Commander-in-chief.

FRANCE.

A letter to the Editor of the London Morning Chronicle, dated Paris, June 4, says:—

There is a great contest going on in France, the result of which must be important to Europe and the world.—It is not a contest of men—but principles; not one set of place-hunters and tax-eaters against another set, both being equally indifferent to the tax-payers, or the public; but it is a question of Royalty on the one hand, and Democracy on the other; of power and force against popular opinion and the voice of a nation. This contest will end in the triumph of the People, or in that of the Monarchy. Should the battle be now gained by the latter, you must not suppose that the question will be settled. No, no, the people will fight on, though it be only with the fragments of their blades; and, believe me, they will fight until they conquer. Should the battle be lost by the Royalist party there will be virtually an end to the Monarchy at once, and ere long there may be another dissolution. In this state of things we live and move, and the stream of events, even more rapid than that of time, bears us on too quickly to the torrent and the cataract. I anticipated rapidity. I foresaw the danger—but I did not think it was quite so near. Let us look, however, events boldly in the face like men, and prepare ourselves for the result.

The newspapers of the day teem with matter respecting the elections. The energy displayed by government in promising rewards, and in menacing, (and in some cases in inflicting punishments,) will, it is believed, have much effect upon such of its employees as are electors. Still the attainment of a Ministerial majority in the Chamber is by no means considered as certain. The Messager des Chambres, and, following it, the whole daily press of France, have stated pretty nearly the main course resolved on by Goverment, but incorrectly some of the details. Here is my version of it. Should the new Chamber of Deputies prove equally intractable with the last, prorogation will, immediately upon ascertaining that fact, take place, and at a convenient season, another dissolution. In the interim the Government will be enabled to carry on its operations without the slightest necessity whatever of having recourse to unconstitutional modes of levying taxes,—They will thus avoid creating discontent on that head, while they will, at the same time, be unerringly and rapidly proceeding towards the attainment of their great object, the command of the Chamber of Deputies.

London Corn Exchange—June 7.

The arrivals of British Grain last week were moderate, of foreign Wheat, large, and of Flour, including American, good. This morning there was a short fresh supply of all sorts of Corn. There was a good deal of business done in the Wheat trade on Friday, at 1s. per. qr. advance, for fine samples, on the terms of last Monday: this advance has been maintained to-day, but sales have not been made so freely. The quantity of oats for sale is tolerably large, and the buyers purchase sparingly expecting the foreigners soon to be liberated: the trade has been dull to-day, and, for any parcels that are unsweet, rather low prices have been taken. Flour unvaried. The duty on foreign Wheat is likely to be 1s. per. qr. lower in a few weeks; that on Oats will, this week, be 9s. 3. per qr.

Liverpool Cotton Market—June 7.

We have experienced a considerable dullness this week in our Cotton Market—the sales however amount to 12,000 bags, and prices upon the whole keep pretty steady. The transactions comprise 150 Sea Islands at 13d. to 18d. with 80 Stained at 7d to 9½d.; 4610 Bowed 6 1-8d to 7 1-8; 2950 Alabama & Mobile, 6d. to 6 7-8d; 1400 Pernambuco, 7 3-8d; 100 Bahia, 7½d; 10 West India, 6¾d; 570 Egyptian, 8½d. to 9½d.; 140 Surat, 4¾d. to 5¾d. per lb. The sales on Saturday and to-day amount to about 400 bags—the demand has, however, been without spirit, and the prices of the Brazil description of Cotton have given way.

Prices Current in Boston, July 16.

Apples, best, bbl. .400 a 5.00. *Beans*, white, bushel. .87 a 1.10. *Beef*, mess, bbl. 9.25 a 10 50; cargo No 1, 9.00 a 9 50; No. 2, 6.50 a 6.70. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, 7. a .8; skimmed milk, 3. a .6. *Flour*, Baltimore Howard-st. 5.37 a 5.53; Genesee, 5.37 a 5.75; Rye, best, 3.50 a 3.87 *Grain*, Corn, bu. .46 a 55; Rye, .65 a .67; Barley .67; Oats .37 a 40. *Hogs'-Lard*, 1st sort, new, lb. 9. a .10.00. *Pork*, clear, bbl, 17 a 18; Navy, mess, 12.25 a 12.50; Cargo, No. 1 12.50. *Seeds*, Herd's Grass, bushel, 2.00 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, —— Tall Meadow Oats Grass 3.00; Red Top .62 a .75; Lucerne, lb. .38 a. 50; White Honeysuckle Clover, — a .33 Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .50 a .55; do. do unwashed, .30 a .35; do. three-fourths, washed, .42 *a* .45, do. half blood, 35 *a* .38; do. quarter, washed, .35 *a* .38; Native, washed .35 a .37; Pulled, Lambs', 1st sort, .43 a 45; do. 2d sort, .35 a .40; do. Spinning, 1st sort, 36 a .37.

Prices Current in New York, July 17.

Bees-wax, yellow .20 a 23. *Cotton*, New Orleans .10½ a .13; Upland, .9¾ a .11½; Alabama, 10 a .12. *Cotton Bagging*, Hemp, yd. .16 a .20, Flax .12 a .17. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a ——; Canal 5.00 a 5.50; Balt. Howard st. 5.00 a 5.12½; Richmond city mills, —— country, 4.75 a 5.00; Alexand'a, 4.75 a 5. Fredericksburg 4.75 a -—— Petersburg, 4.75 a ——; Rye Flour, 3.37½ a ——; Indian Meal, per bbl. 2.50 a —— per hd 12.25 a 12.50. *Grain*, Wheat, North, —— a ——; Vir. 1.05 a 1.07; Rye, North, 64 a 66; Corn, Yel. Nor. .54 a 56; Barley, — a — Oats, South and North, .32 a .38; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8 00. *Provisions*, Beef, mess 9.50 a 10.00; prime a 6.25 a 6.75; cargo 5.— a —— Butter, N. York, 12½ a 15; shipping, 6 a 11; Lard, .8 a .8¾; Pork, mess bbl. 13.50 a 14.12½; prime 9.75 a 10.12½; cargo 5.50.

Prices Current in Charleston, July 12.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 25. Upland, inferior and common .9 a .10, fair to good, .10 a 10½, prime to choice, .10¾ a .11 5-8. *Rice*, prime, $2¼ a .2½, inferior to good, do. $1.87½ a .2.12½. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5.37¼ a .5.50. *Corn*, North Carolina, .— a -—.; Maryland, .46 a .48. *Oats*, .37 a .—; Peas. 65, sales. *Hay*, prime Northern, .90 a 93. *Whiskey*, Philadelphia and Baltimore, hhds .24 a .——; bbls. 25½ a 26; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a 6½; Cargo, .5½, nominal. *Pork*, Mess. .13½ a 14; Prime, .— a .11, scarce. *Bacon*, .7 a .— cents; Hams, .8½ a 9; Lard, 8½ a 9. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

AGENCIES.

The Subscriber is agent for the following persons, and all orders directed to him, or left at his Agricultural Warehouse and Seed Store, No. 36, West Pratt street, Baltimore, will be promptly attended to.

Viz. for Messrs. Walker and Hammond's Iron Foundry, where all kinds of *Castings* can be had, equal to any made in this country, and on reasonable terms.

Also, for Messrs. Peirson and Walker, manufacturers of all kinds of *Spindles* for factory use, these will be warranted equal or superior to any ever before made in or imported to this country.

Likewise, agent for the Messrs Robbins's improved *Corn Planter* for planting or sowing all kinds of seeds; can furnish the machines or dispose of the patent right. All communications by mail must be post paid.

Also, general agent for Messrs. D. & C Landreth's Seed and Horticultural Establishment at Philadelphia

Also, a general assortment of Agricultural Implements on hand as usual, &c. J. S. EASTMAN.

MACDUFF,

For Sale,—Price $300.

He is a full bred Durham short-horned bull, bred by Mr. Powell of Philadelphia: red and white, calved in June, 1827. *Dam* Annabella, sold at the auction of Mr. Powell's cattle on 16th June, to Mr. Freeman of Baltimore for $310.—*Sire*, Mr. Powell's celebrated Bull *Malcolm*.

The stock from Macduff has proved good, the bull may be seen on the farm of the subscriber near Newark, New Jersey. Letters directed to him, 27 Nassau street, New York, will be attended to. A. DEY.

New York, June 22, 1830.

BEAUTIES AND DEFECTS OF THE HORSE.

CARTER & HENDEE, Boston, have just published "*Beauties and Defects in the Figure of the Horse*; comparatively delineated in a series of elegant engravings;" accompanied with accurate explanations of the points and character of that most useful and noble animal.—*For sale at the office of the Turf Register*, price $1 .75.

ALMANAC.

1830. July.	Sun. Rises.	Sun. Sets.	Length of days.	Moon. rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 24	4 49	7 11	14 22	10 05
Sunday,...... 25	4 50	7 10	14 20	10 40
Monday,..... 26	4 51	7 09	14 18	11 15
Tuesday,.... 27	4 52	7 08	14 16	11 54
Wednesday, 28	4 52	7 08	14 16	morn.
Thursday,... 29	4 53	7 07	14 14	0 25
Friday,....... 30	4 54	7 06	14 12	1 10

Moon—First Quarter, 28th, 3h. 47m. Afternoon.

BALTIMORE PRICES CURRENT.

Baltimore Markets.—A small advance has taken place in the price of flour, the wagon price of Howard street being $5. This advance is entirely owing to the scarcity of the article, the quantity coming in being extremely small. This however is always the case at this season of the year Our highest quotation of city mills flour, is for extra quality. In other articles there is little change and less doing.

Tobacco.—Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a 28 00—St. Domingo, 8.00 a 15 00. The inspections of the week are 165 hhds Maryland, 29 hhds. Ohio; 3 hhds. Kentucky; and 3 hhds. Pennsylvania; total 200 hhds.

Flour—best white wheat family, $5 50 *a* 6.00—super. Howard-street 5.12½—city mills, 4.62½ *a* 5—Susquehanna, ——; Corn Meal, bbl. 2 25——Grain; best red wheat, new 95;—best white do. new 98 *a* 1.05; Maryland red 80 *a* 87½—Corn, white, .46 *a* .—; yellow .47 *a* .——Rye, .— *a* .50—Oats, .33 *a* .—— Beans, .90 *a* 1.00-Peas, .40 *a* 50-Clover seed, 3.75 *a* 4. Timothy, 2.50 *a* ——Orchard Grass, 1.50 *a* 1.75—Herd's, .75 *a* 1.25—Lucerne 30 *a* 37½ lb —Barley,-Flaxseed, 100 *a* —Cotton, Vir. 9½ *a* 10½ Lou. 11 *a* 12 —Alab. .9½ *a* .11—Tenn. 9½ *a* .10—N. Car. 8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .22 *a* 22½; in bbls 23 *a* 24—Wool, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22-three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $210 *a* 212; Country, dew-rotted, 5.5½c. lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1. bbl. .4 00 *a* .4.25 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.50 *a* ——Bacon, hams, Balt. cured, .9½ *a* .10—-Feathers, .— *a* 33—Plaster Paris, cargo price per ton, 3 80 *a* 3.90 ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.00 *a* 5.00—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

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AGRICULTURE.

(From London's Encyclopædia of Agriculture.)

CULTURE OF THE TURNIP.

The turnip is a native of Britain, but in its wild state is not to be recognized by ordinary observations from wild mustard. It was cultivated as food for cattle by the Romans; and has been sown for the *same* purpose in the fields of Germany and the low countries from time immemorial. When they were introduced in this country, as a field plant, is unknown; but it is probable turnips would be found in some gardens of convents from the time of the Romans; and it is certain that they were in field culture before the middle of the seventeenth century, though then, and for a long time afterwards, in a very inferior and ineffectual manner. It has been stated that turnips were introduced from Hanover in George I.'s time; but so far from this having been the case, George II. caused an abstract of the Norfolk system of turnip husbandry to be drawn up for the use of his subjects in Hanover. The introduction of improved turnip culture into the husbandry of Britain, Brown observes, "occasioned one of those revolutions in rural art which are constantly occurring among husbandmen; and, though the revolution came on with slow and gradual steps, yet it may now be viewed as completely and thoroughly established. Before the introduction of this root, it was impossible to cultivate light soils successfully, or to devise suitable rotations for cropping them with advantage. It was likewise a difficult task to support live-stock through the winter and spring months; and as for feeding and preparing cattle and sheep for market during these inclement seasons, the practice was hardly thought of, and still more rarely attempted, unless where a full stock of hay was provided, which only happened in very few instances. The benefits derived from turnip husbandry are, therefore, of great magnitude. Light soils are now cultivated with profit and facility; abundance of food is provided for man and beast; the earth is turned to the uses for which it is physically calculated; and, by being suitably cleaned with this preparatory crop, a bed is provided for grass seeds, wherein they flourish and prosper with greater vigor than after any other preparation."

Turnips and clover, it is elsewhere observed, "are the two main pillars of the best courses of British husbandry; they have contributed more to preserve and augment the fertility of the soil for producing grain—to enlarge and improve our breeds of cattle and sheep—and to afford a regular supply of butcher's meat all the year, than any other crops; and they will probably be long found vastly superior, for extensive cultivation, to any of the rivals which have often been opposed to them in particular situations. Though turnips were long cultivated in Norfolk before they were known in the northern counties, yet it is an undoubted fact that their culture was first brought to perfection in Roxburghshire, Berwickshire, and Northumberland, and chiefly through the exertions of Dawson, of Frogden, in the first named county, and Bailey, of Chillingham, in the latter.

Of yellow turnips, there are the field yellow, which is more hardy than the globe, and answers well for succeeding that variety in spring; and the ruta baga, or Swedish turnip, which may be preserved for consumption till June. The Siberian turnip has a bulb and a branchy top, but both of inferior quality. It is a hybrid between a white ruta baga and field cabbage, or between rape and cabbage.

Turnip-seed will grow of any age, if it has been carefully preserved; that which is new comes up first, and therefore it is not a bad plan to mix new and old together, as a means of securing a braird against drought or the fly. Whether plants from new or old seed are most secure from the depredations of the fly, is perhaps a question which cannot be easily determined, even by experiments; for concomitant circumstances are frequently so much more operative and powerful as to render the difference between them, if there be any, imperceptible. It is, however, known to every practical man, that new seed vegetates several days before the old, and more vigorously; and it is equally well known that the healthy and vigorous plants escape the fly, when the stinted and sickly seldom or never escape it. Hence it would seem, that new seed, *cœteris paribus,* is more secure from the fly than old.

The soil for turnips should always be of a light description. In favorable seasons very good crops may be raised on any soil; but from the difficulty of removing them, and the injury which the soil must sustain either in that operation, or in eating them on the spot with sheep, they never on such soils can be considered as beneficial to the farmer. Turnips cannot be advantageously cultivated on wet tenacious soils, but are grown on all comparatively dry soils under all the variations of our climate. On dry loams, and all soils of a looser texture, managed according to the best courses of cropping, they enter into the rotation to the extent of a fourth, a sixth, or an eighth part of the land in tillage; and even on clayey soils they are frequently cultivated, though on a smaller scale, to be eaten by cattle, for the purpose of augmenting and enriching the manure, into which the straw of corn is converted.

In the preparation of the soil, the first ploughing is given with a deep furrow soon after harvest, usually in the direction of the former ridges; though, if the soil be dry, it is of little consequence in what direction. As soon as the spring seed-time is over, a second ploughing is given across the former, and the harrows, and, if necessary the rollers, are then set to work to clean and pulverize the soil. All the weed-roots that are brought to the surface are carefully gathered into heaps, and either burnt on the ground, or carried off to form a compost, usually with lime. The land is then generally ploughed a third time, again harrowed well. sometimes also rolled, and the weed-roots picked out as before. Unless land is in a much worse state, in regard to cleanness and pulverization, than it usually is after turnips have been some time a rotation crop, no more ploughings are necessary. It is next laid up in ridgelets, from twenty-seven to thirty inches wide, either with the common swing-plough, or one with two mould-boards, which forms two sides of a ridgelet at once. Well-rotted dung, at the rate of twelve or fifteen tons per acre, is then carried to the field, and dropped from the cart in the middle one of three intervals, in such a quantity as may serve for that and the interval on each side of it. The dung is then divided equally among the three, by a person who goes before the spreaders, one of whom, for each interval, spreads it with a small three-pronged fork along the bottom. The plough immediately follows, and, reversing the ridgelets, forms new ones over the dung; and the drill-barrow, commonly one that sows two drills at once, drawn by one horse, deposits the seed as fast as the new drills are formed. This drill-machine is usually furnished with two small rollers; one that goes before the sowing apparatus, and levels the pointed tops of the ridgelets, and another that follows for the purpose of compressing the soil and covering the seed. From the time the dung is carted to the ground, until the seed is deposited, the several operations should go on simultaneously; the dung is never allowed to lie uncovered to be dried by the sun and wind; and the new ridgelets are sown as soon as formed, that the seed may find moisture to accelerate its vegetation.

Manure may be considered as essential to turnips. Turnip-land, Brown observes, cannot be made too rich, for, in fact, the weight of the crop depends in a great measure upon its condition in this respect. Manure is sometimes applied to the crop which immediately precedes the turnips; but, to answer well in this way, the land must naturally be of an excellent quality. In other cases, where the land is in good order, it is laid on the stubble previous to the first ploughing. But generally the dung is laid on immediately before the seed is sown; the ground is formed into drills or ridges, and the manure spread in the intervals between them; the drills are then split by the plough, the earth on each side covers the dung, forms a drill where the interval formerly was, and furnishes a bed for the seed. These operations are now so well understood, that it is unnecessary to describe them more particularly. Farm-yard manure is the kind generally applied: it should be well rotted, and not less than twelve or fifteen tons allowed to each acre.

The time of sowing the several varieties is somewhat different; the Swedish should he put in the earliest, and then the yellow, both of them in the month of May. But as these kinds are much less extensively cultivated than the globe, the month of June is the principal seed time; and after the first week of July a full crop is not to be expected in the northern parts of the island. But in the southern counties turnips are frequently sown in August after pease, wheat, or tares.* The crop, however, is always light and only fit to be eaten down by sheep in spring, or to send their tops to market as greens. After a crop of hotspur pease sold green for the London market, the land is well cleared with the horse-hoe, and upon once ploughing, turnips are sown; and just before the young plants are observed to be cutting the ground, the field receives a light top dressing of soot-ashes, or the most portable manure that can be conveniently procured. This dressing, upon frequent trial, has been found to have a very good effect in preserving the infant turnip plant from the depredations of the fly.

The quantity of seed is usually from two to three pounds per acre.

The mode of sowing in all the best cultivated districts is on raised drills. Not only the broad-cast, but even rows on a flat surface are rejected by all who understand the culture of the turnip. This plant never does any good in the field till its roots reach the dung; and therefore the only mode to ensure a heavy crop, is to put the dung immediately beneath the row. This is only to be done by the ridgelet, or raised drill system, as already explained in treating of preparing the soil. The drill used may be either the hand-drill, which sows one row at a time, and is pushed along by a woman, or by the horse-drill, which sows two rows. The latter from its weight and breadth performs the work with greater accuracy, and much more effectually than can be done by any hand machine. So much has been written to prove the disadvantages of sowing broad-cast, and the benefits of the drill system, that the subject may be considered as settled in favor of the latter, even in the case of midsummer sowing after early pease gathered green.

The after culture may, in some cases, require to commence with watering by Young's excellent machine, though this has by no means found its way among farmers, and is only likely to be occasionally necessary. Some commence by strewing soot or lime along the row to annoy the fly, or sharp sand. ashes, or barley awns, to ward off the slug. In general, however, these practices are confined to gardens or cultivators on a very small scale, and like many others they are much oftener talked of than put in practice. The turnip farmer, as soon as the plants have put forth the *rough leaf,* or sooner if annual weeds have got the start of them, runs a horse-hoe between the ridgelets and cuts up the weeds on each side, almost close to the rows of the turnip plants, clearing out the bottom of the interval at the same time. The hand-hoers are always set to work as soon as possible after, and the plants are left about nine inches distant; the Swedish kind somewhat closer. If the ground has been well prepared, and the plants are allowed to get too large, three experienced hoers go over an acre a day. A few days after this, a small swing plough, drawn by one horse, enters the interval between the roots, and, taking a furrow-slice off each side, forms a smaller ridgelet in the middle. If the annuals still rise in great abundance, the horse-hoe may be employed again, otherwise the next operation is to go over them a second time with the hand-hoe, when the intermediate ridgelet is levelled. Sometimes a third hoeing must be given, but that is done very expeditiously. When no more manual labour is required, a small plough with two mould-boards is employed to lay up the earth to the sides of the plants, leaving the ridgelets of the same form as when sown, which finishes the process. Large fields throughout their whole extent, dressed in this manner, are left as clean and as pleasant to the eye as the best cultivated garden. The horse and hand-hoeing, in ordinary cases, may cost about fifteen shillings per acre. Where the soil is perfectly dry, and has been well prepared, the small plough has of late been laid aside by many farmers, and the space between the rows is kept clean by the horse and hand-hoe alone; but if the soil be either wet from springs, or so flat as not easily to part with the surface water, it is still considered proper to earth up the roots as the concluding part of the process; and it is always useful to plough between the ridges when cough-grass and other weeds have not been completely picked out before the land was sown. The gathering of the weeds, the spreading of the dung, and the hand-hoeing, are almost always performed by women and boys and girls.

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* Excellent crops have been raised in Maryland, the seed of which was sown in August.—Ed. Amer. Far.

The turnip crop is generally taken and consumed at the same time. They are consumed either on the spot where they grow; on grass-fields; in fold-yards; or in feeding-houses; but the far greater part, wherever they are extensively cultivated, by sheep. The price per acre when sold depends not only upon the weight of the crop, but also on the mode of its consumption.

When *eaten by sheep* in the place of their growth, turnips are lotted off, by means of hurdles or nets, that they may be regularly consumed. When the first allowance is nearly eaten up, the bottoms or shells are picked out of the ground, by means of a two-pronged blunt hook adapted to the purpose; and then another portion of the field is taken in, by shifting the hurdles or nets, and so on regularly until the whole are finished; the cleared part of the field being usually left accessible as a drier bed for the sheep, and that they may pick up what shells remained when a new portion of the field was taken in.

The turnips required for other modes of consumption are usually drawn out, at regular intervals, before the sheep are put upon the field; unless the soil be so poor as to need all the benefit of their dung and treading, in which case, the whole are consumed where they grow; or so rich as to endanger the succeeding crops, by eating any part of the turnips on the ground. In the latter very rare instance, the whole crop is carried to be consumed elsewhere, as must always be done, if the soil be naturally too wet for sheep feeding. In wet weather, when sheep ought not to be allowed to lie on the turnip field, it becomes necessary to carry the turnips to a grass field; and store sheep, not requiring to be so highly fed, frequently eating their turnips on such fields, as well as rearing cattle, and sometimes milk cows. A grass field contiguous to the turnip one is always very desirable, that the sheep confined on other sides by hurdles or nets, may always find a dry place to lie on.

In the *expenditure of turnips to young cattle*, and to sheep in their first year towards spring, when the loosening and shedding of their teeth render them unable to break the large roots, it is usual to cut or slice the turnips, either by means of a spade, or chopping knife, or by an implement constructed for the purpose, called a turnip-slicer, or they are crushed by means of a heavy wooden mallet.

During severe frosts, turnips become so hard that no animal is able to bite them. The best remedy in this case is, to lay them for some time in running water, which effectually thaws them; or, in close feeding houses, the turnips intended for next day's use, may be stored up over night, in one end of the building, and the warmth of the animals will thaw them sufficiently before morning. But in those months when frosts are usually most severe, it is advisable to have always a few day's consumption in the turnip barn. When a severe frost continues long, or if the ground be covered deep with snow, potatoes ought to be employed as a substitute.

The Swedish and yellow turnip are eaten greedily by horses; and afford a very nutritive and salutary food along with hay or straw for working stock. The best mode is to steam them after previously passing them through the slicing machine, as no root requires so much cooking as the Swedish turnip. Horses will also eat the white turnip, but not freely, unless they have been early accustomed to them, as in some parts of Norfolk.

ROTATION OF CROPS.

Chester County, Penn. July 20, 1830.

J. S. Skinner, Esq.

In compliance with the request of *"a subscriber,"* in the Farmer of the 16th inst. I propose to offer a few additional particulars, relative to our mode of farming, in this district of country: though my former communication, in fact, exhibits the principal features of the system which is most approved here. The subordinate operations,—such as cultivating more or less of *roots,* feeding *hogs,* or *sheep,* making butter, &c.—may be varied according to the demands of the times, or to suit the local circumstances of the farmer, but the main object, as we apprehend, is to improve the condition of the land by a judicious *rotation of crops,* and to get the pasture fields and mowing grounds covered with a mellow, productive sod,—full of valuable grass roots, and clear of mullins, briars, daisies, thistles, and all sorts of weeds and rubbish. To this I add my own conviction, that the farm should be divided into such a number of fields, as to allow them all, in succession, to repose four or five years in pasture. It is usual, here, to let the land rest about *three* years in grass; but I am satisfied that, where the soil is duly improved, and well filled with the roots of useful herbage, it would be advantageous to *extend* the term of pasturage. In this case, the leading object with the farmer would be the feeding of cattle,—or, if he lived near enough to market, and had a good, cold spring-house, he might find his account in a dairy. Our best farmers in this region, have generally turned their attention to feeding cattle,—as being less laborious than a dairy, at the distance we are from the city—and less exhausting to the land, than severe cropping, with grain; but still each field takes its turn, in regular succession, in the manner described in my last. *Root crops* are not much attended to, except potatoes; and those chiefly for family use,—planted along the margins of the Indian corn fields. However valuable the esculent roots may be found, in European agriculture, it does not appear to me, that they will ever become prominent objects of attention in this country, where the Indian corn can be raised so successfully. At any rate, our main reliance in Chester county, next after feeding stock, is upon our crops of Indian corn, barley, and wheat. The *number* of horned cattle, hogs, and sheep, which can be fed on a farm of given size, of course depends on the quality and condition of the land. A good farm of medium size, (say with 100, or 120 acres, of cultivated land,) will feed from 20 to 30 bullocks, averaging about 600 pounds each; and these will make a sufficiency of manure to keep the land in good order. Hogs are not usually fed in any great numbers; but every farmer keeps enough to supply his family, and also to spare some hams and bacon for the market. Sheep are frequently procured from other districts, and fattened for the butcher; but the breeding of flocks does not seem to be exactly suited to our small, highly cultivated farms. Sheep do not relish our rank, artificial grasses, so much as the spontaneous growth of comparatively sterile hills; and I am inclined to think the extensive ranges of our mountainous districts will be found much better adapted to the raising of large flocks Our farmers are generally good economists, and keep sheep enough to clothe their families in winter; but beyond that, they rarely go, for the reason already suggested. Our surplus grain is either fed to stock, or sold to the merchant millers for ready money,—as the state of the markets may render eligible. The *barley crop,* of course, goes to the brewers. The best mowing fields yield about two tons of hay to the acre; and our object is to mow only as much ground as will suffice to keep well, through the winter, as many cattle as we can feed fat, the ensuing summer; we do not consider it beneficial to mow more than that; and by no means approve of cutting grass to sell, or to be consumed *off* the farm. With respect to the quantity of *wheat* raised per acre, in this county, it is as variable as the quality of the land. Our good farms will yield from 15 to 25 bushels of clean wheat, and I have even heard of 30, and more, bushels to the acre: but I would willingly compound for a regular crop of 20 *bushels* per acre. It is quite as much, I think, as our farms will average. The truth is, we rarely have any of those extraordinary products amongst us, that we read of elsewhere. We seldom acquire large fortunes here, and never suddenly. Indeed, we have very few marvellous occurrences, of any sort. All our improvements have been gradual, and are the result of steady operations, and well known causes. Our farms are small,—we work them with our own hands,—and our profits are moderate: but if we do not hold great estates, we generally endeavour to be content with what we have, and find, perhaps, as much real comfort in the economical culture of our small fields, as if we had thousands of acres. "A little farm well tilled," with the usual accompaniments, you know, has long been considered a desirable acquisition: and I know of no neater dress for such a farm, than a goodly portion of clean, luxuriant sward, enclosed by substantial fences, or well trimmed hedges. I believe, also, that such farms will be found more profitable in the long run, with less labor, than the same quantity of acres subjected to inordinate, or extravagant cropping of grain.

These desultory, and hastily written remarks, are cheerfully placed at your disposal. If you think they will in any degree meet the wishes of your correspondent, or be acceptable to any of my agricultural brethren, in other sections of our country, you will give them a place in the American Farmer.

Very respectfully, &c. W. D.

TOBACCO—IRISH CULTIVATION.

Among the expedients for promoting the prosperity of Ireland, that of encouraging the cultivation of Tobacco there, seems to be seriously entertained. On this head, we annex the following extract:

Irish Tobacco.—The following may be considered as the result of the general evidence before the Committee of the House of Commons on Tobacco cultivation, up to Wednesday, 25th of May, the fourth day of sitting:—

1. That in Ireland the average produce, per acre, is equal to that of the United States.

2. That the cost of production is the same.

3. That tobacco is a superior preparation for wheat, but like hops or potatoes returns nothing for the renovation of the soil.

4. That the quality of Irish tobacco is not equal to that of Virginia, but is admitted to be capable of great improvement.

5. That a difference of duty is requisite for a time to compensate the difference of quality.

6. That the cheapness of native tobacco will overcome all obstacles to its use, and compensate the revenue by an increase of consumption.

7. That the attraction of capital, its diffusion in wages, the certain employment of the people—their improved comforts and habits of industry will advance general improvement, and farther revert through various channels to the benefit of the revenue.

These premises being established by evidence for and against the measure, the only difficulty before the committee is the revenue. To guard this, two modes have been canvassed—first, a pound tax on the cured article; and secondly, a tax on the superficial extent under cultivation.

The first has been abandoned by reason of the required supervision of an extensive excise establishment; and the second has been preferred, as the duty can with facility be collected by a classification of the crops, and a graduated scale of duty chargeable on the grower.

This last preference being conceded, has only been objected to on the ground that the duty on foreign tobacco being chargeable by the pound weight, it cannot compete with an article not precisely determined by the same standard, as the view and return of cured tobacco may vary.

To this point the question is now considered to be reduced.

HORTICULTURE.

(From the Albany Argus.)

CULTURE OF STRAWBERRIES.

Methven Scarlet Strawberry.—I picked a pail of strawberries in my garden this morning, of this variety, which had an average circumference of three inches each. Several measured four inches, and one four and a quarter inches. Sixty-three, divested of the hulls, (calyx) weighed a pound, which is a trifle more than four to the ounce.

I received this strawberry, with eleven other varieties, from the London Horticultural Society, in 1825, and eight of them grew. The Duke of Kent, Downton, and Methven, are the only kinds I have kept distinct.

The Duke of Kent is a good sized scarlet, early, and a great bearer, and the crop lasts about ten days; the fruit highly flavored.

The Downton is a new variety of the Chili, artificially crossed by Mr. Knight. It comes in after the Duke of Kent. The first berries are often of a cockscomb shape, and very large.—I have measured them two years in succession, 4¾ inches in circumference. I do not think them equal in flavour to the Methven or Duke of Kent. Although the Downton is reputed to be a great bearer in England, it has not proved so with me, upon any soils upon which I have grown it.

The Methven, as I have stated, is also a large berry, and fine flavored. It comes in after the Duke of Kent, and rather before the Downton. It is a good bearer, and continues ripening two weeks or more.

The strawberry may be transplanted any time after the fruit is gathered, and the stolens furnished with strong plants. August and September are, on the whole, the best months.—The best soils are deep rich sand, or clay loams, inclining to moisture. Let the ground be dug deep, well manured, and completely pulverized and raked. Draw the garden line across one side of the bed, and dibble in the plants, previously grouted, the Methven and Downton at 18 inches distance, and the Duke of Kent at 14 or 12 on the line. Draw the line again at 18 for the former, and 12 for the latter, from the first row. These two rows constitute a bed. Leave an interval of two feet, and commence and finish a second bed like the first. Water the plants, and if the weather is dry, repeat the watering at intervals. Keep the stools of the largest separate, by cutting the runners or stolens at least twice in the season, while in bloom, and when the bed receives its dressing in autumn, and the intervals between the beds, of all the kinds, free and clear. Dig the intervals, with a good dressing of manure, in September, and point or fork the ground again slightly in April. When the old stools have ceased to bear well, let the runners fill the intervals or alleys. The beds and alleys may thus be alternated at pleasure. Straw laid under the trusses when in blossom, will keep the fruit clean and the ground moist, two objects very desirable, as the plants require much moisture at this time to fruit well.

We have lately introduced into the Albany Nursery four other strawberries of high repute: Keene's seedling, considered one of the finest berries in England, and about the size of the Methven; the Rosebury, a black fruit; Witmal's Superb, which has been grown to the circumference of 6 or 8 inches; and a black Hautboy. The Rosebury and Hautboy promise to be abundant bearers; but our experience will hardly yet warrant a definitive opinion of the other.

All the kinds here named are perfectly hardy, and require no covering in winter; though a few pine or other evergreen boughs, are evidently beneficial, when thrown over the beds, in preventing the sudden alternations of heat and cold. Plants of the several kinds will be furnished to order at the Nursery.

Albany, June 28. J. BUEL.

(From the N. York Farmer and Hort. Repository.)

TRANSPLANTING TREES.

It is a rule among gardeners, tha *herbaceous plants may be successfully removed at any time during summer;* but that *trees or shrubs should only be transplanted in spring or autumn.* By some writers indeed (as in the article referred to) we are directed to suspend this operation on fruit trees, "till the trees have shed their leaves."

No doubt there is great difference in the climate as well as in the soil of the middle and eastern states; and the best season for transplanting in one place will not be the best in another. But I am partial to autumnal planting, and in this northern part of the 43d degree of latitude, never hesitate to remove our common fruit trees after the close of the ninth month (September.) A more general rule might be given, which would serve for an extensive region, to wit; *it is safe to transplant trees or shrubs as soon as the summer heat is over, and the fall rains have wet the ground.*

To know what may be done in this line with a reasonable prospect of success, is important to horticulturists on their travels, whose opportunities for procuring desirable plants may not recur. Permit me therefore to detail some of my own experience, and it will appear that the ordinary rules may be sometimes disregarded.

In the early part of the sixth month (June) 1827, I brought *Juniperus prostrata* 150 miles, and planted it on the north side of a board fence with perfect success though the new leaves were expanded.

On the 4th, of the ninth (Sept.) 1828, I was presented with a pear tree (a rare variety) brought it 340 miles, and could not discover it injured by that *untimely* removal.

On the 20th of the eighth month (August) 1829, I procured *Ilex canadensis* from a swamp at the distance of 20 miles. Bog moss was plentifully inlaid round the roots, when it was planted in my garden, and these shrubs are now growing.

On the 21st, of the ninth month (Sept.) 1829, I removed two grafted cherry trees *in full leaf,* and their vegetation is now vigorous and rapid. At the same time, I transplanted three of the *malvoisie vine.* A few weeks after, on taking up one of those for a friend, I found *a new root* 2½ inches long. Both are now growing well.

In the four last cases, it should be remarked, that the season was wet. D. T.

(From the New York Farmer.)

ON THE CULTURE OF THE FOX-GLOVE.

The purple fox-glove, including a white variety, is *an imperfect perennial; like* biennial plants, its vital energy is exhausted in producing flowers and seeds; but *unlike* biennials, lateral shoots grow simultaneously with the stalks, and often form good roots of their own, so as to survive the mature parts of the plant.

Latterly, I have been in the practice of separating the suckers or *new parts* of the plant from the dead stalks and rigid roots; and as these shoots are thick and succulent, I have transplanted them with invariable success. Frequently, they flower the same season, and if not, always afford fine plants for another year.

In the autumn of 1827 I procured *a lateral shoot* of the white fox-glove. It has flowered profusely, many suckers have been removed, the *hard* roots have been extracted, and I perceive no indications of decline.

Independent of its medicinal properties, the fox-glove receives a liberal share of admiration, though it blooms in the most abundant season of fine flowers. When unprotected, in the open ground, it sometimes perishes in winter, though the white variety is naturalized in the woods near Pultneyville (Wayne co.,) whence I received a fine one in the fall of 1825. On the approach of winter, I have crowded round the plant, fallen leaves: and strewing more on the top, have confined them by a sprinkling of earth. This mode has been successful; but none has preserved such a fine green as one which I covered with *a thin inverted sod.* D. T.

Grealfield, 4mo. 1830.

(From Prince's Treatise on the Culture of the Grape.)

NOMENCLATURE OF GRAPES.

TROY GRAPE.

Purple Hamburgh, of Troy, N. Y.

A vine called by the second title above stated is much cultivated in the gardens of Troy; but as it is a genuine native, and the common appellation is so very incorrect and calculated to create much confusion, I have adopted a different one and called it the Troy grape. I am not certain, however, but experience may prove it to be synonymous with some other native variety. I made the following description from actual observation the past year, and think it a valuable native grape.

The leaves are smooth above and downy beneath, partially three-lobed, with slight indentures, the teeth terminating in small points; the fruit is of very good quality, and the flavour pleasant, with a little of the fox taste; the form somewhat oval, and the size about that of the Isabella, to which it bears considerable affinity. It is a very hardy, vigorous vine, produces large crops, and the fruit is held in much estimation.

NAZRO GRAPE.

This vine was originated from seed by Henry Nazro, Esq. of this state, a gentleman much devoted to the culture of the grape, the parent vine is the Troy grape which I have just described.

The seed which produced the Nazro grape was planted in the fall of 1825, and the vine has borne fruit the two seasons of 1828 and 1829. The berries hitherto produced, have been of medium size, and only about half as large as those of the parent vine, they are of oval form, sweet and of very pleasant flavour, possessing less of the fox taste, and seem in these respects to be quite an improvement on the original. Those I have eaten (and which were politely sent by Mr. N.) had in no case more than one seed, and one berry had none. They ripen at Troy the latter part of August. The circumstance of the diminution of seeds in this seedling is worthy of particular note, as most authors attribute such diminution to a long course of culture and a continued increase from cuttings; but here is a seminal variety, in its youth and full vigour, possessing a characteristic generally supposed to derive its existence from age and exhaustion. Where now rests the basis of their arguments?

Mr. N. remarks, that although the fruit hitherto produced has been rather small, still it is probable that its size may be increased as the plant advances in age. The vine was sent to me without a name, but I have thought it correct and just to call it after the person to whom it owes its origin.

BEAVERDAM.

This variety originated in Virginia, and derives its title from its native locality. It was sent to me with several other varieties by my highly respected friend and correspondent Thomas S. Pleasants, Esq. of that state, who may be justly ranked among the most ardent friends of the vine culture. The fruit is dark purple, the berries scarcely a size smaller than those of the Bland, with a thin skin, and from one to two seeds in each; they are sweet, juicy, and slightly pulpous, and are devoid of that musky flavour belonging to the Isabella and Alexander, to which some object. The bunches are large and winged, the berries of beautiful appearance and not closely set.

Mr. P. considers it the finest native grape that has come under his notice, and states, that the original vine is such a well known favourite, that it is invariably robbed before the fruit comes to maturity, and that he has but once been able to obtain any in a perfectly ripe state. It is represented also by the people in its vicinity, to be superior to any of the wild grapes they have ever tasted, and in fact equal to most of those that are cultivated, and the owner of the original vine regards it as a treasure. It is of course not equal to the Chasselas, and Frontignac grapes; but as an American native variety, I have no doubt it will on cultivation be deemed a most valuable grape, and the probability is, that it will make good wine. The original vine grows on a barren old field, surrounded by three trees, the effect of which must be to starve the plant and fruit. Its natural position therefore is not an advantageous one. If such be its character in a locality, where it is evidently stinted in its aliment, surely its merits may be enhanced by transplanting it to a better situation. The fruit on the original vine ripens about the middle of September, but cultivation might probably hasten its development and maturity.

A letter very recently received from Mr. P. contains the following additional remarks, which are highly interesting:

"In the perusal of a proof sheet of your Treatise just received, I was forcibly struck with an observation you make in your description of the Bland grape, where, to prove its native origin, you state that identically the same grape has been received from Carolina under the name of Red Scuppernong, and that several native vines received from different parts of our country greatly resemble it *in foliage, wood, and manner of growth, &c.* Now the "foliage, wood, and manner of growth," of the Beaverdam grape are precisely like the Bland, only that I cannot speak certainly of the appearance in putting out in the spring, not having had my attention drawn to their great similarity soon enough to determine the resemblance in that point. I did not therefore have full faith that the Bland grape was a native, but I am now fully satisfied, and I entertain little doubt but that the Beaverdam is a variety of the same family. There is another strong point of resemblance; the bunches of the Beaverdam are, it is true, larger and longer, but in other respects they are exceedingly alike; the berries on the Bland are, we know, generally scattering, not from any deficiency of bloom, but from an inaptitude perhaps to set themselves, so that the result is, there are many stems on the bunches without fruit. This peculiarity appears also to apply to the Beaverdam. I should therefore think it highly probable they are of the same class, and I have merely made these remarks to corroborate your views showing that the Bland is a native "

In addition to the foregoing exceedingly fine variety of the Bland family, the author has to state that a strong probability exists of the discovery of a fine *white* variety of the same class.

MARYLAND PURPLE.

This variety I received from the same source whence I obtained the preceding one. It is a native of Maryland, where it was found growing in the woods; the berries are stated to be of tolerable size, of a purple colour, and remarkably sweet and juicy, and attain to maturity in October. It was not brought into garden culture until the past year, but had attracted particular attention where growing in a wild state.—I had proposed to give to this the appellation of Pleasant's grape after the worthy contributor; but as he states that the partial opportunities as yet afforded for examination have not been sufficient to speak decisively of its merits, I decline such course in this case, but with the determination to adopt that title for one of the finest unnamed varieties in my possession, as soon as I can make the selection of one worthy of it.

SILK CULTURE.

Several thousand mulberry trees, have been planted in the vicinity of Troy, N. Y.;—Dr. Corning, and Mrs. Pawling, are each feeding several thousand silk worms.

RURAL ECONOMY.

(From the Magazine of Useful Knowledge.)

MANAGEMENT OF BEES.

Nothing can be more cruel than the practice, which we believe to be almost universal among our farmers, of destroying that most useful and interesting insect, the Honey Bee, for the purpose of obtaining those treasures which its industry and skill have accumulated and its sagacity provided for food during that season when it must cease its operations. Setting aside the barbarity of the practice, nothing can be more *unnecessary*, and *unprofitable* to the cultivator of the Bee, who may just as well avail himself of its industry and preserve its life; in truth, the destruction of this little animal, for the sake of its honey, forcibly reminds us of the fable of the goose and the golden egg, with which we presume every one of our readers is familiar—if not, however, we recommend them to read it. The industry of the Bee is proverbial, and if properly managed, a hive is able, not only to provide a sufficient supply of provisions for themselves during the winter, but will furnish a considerable surplus: in France and the European countries generally, this is well understood: instead, therefore, of destroying their Bees in the autumn, they take from them, from time to time during the summer and flowering season, as much honey as they deem it prudent, which the Bees immediately go to work to supply again—or they sometimes adopt another method, that of inducing the Bees to leave the hive which they have already filled, and enter an empty one; this is done in the following manner:

In the dusk of the evening, when the inhabitants of the hive are all collected within it, take it from the place upon which it stands, and set it, bottom side up, upon the ground; then take a clean hive, prepared for the purpose, and place it upon the old one, the bottom of course being open. Having done this, rap the old hive gently with a stick, some fifteen minutes, during which the Bees will leave it, and enter the new one. This being done, lift the new hive carefully from the old one, and place it upon the bench from whence the other was removed. You will now have the honey separate from the Bees, and perfectly clean and nice. The Bees finding their treasure gone, will by no means give themselves up to despondency, but fall to, like industrious fellows, as they are, and if they have time, (and to allow them that, this should not be done later than about the middle of August) will provide an ample store of provisions for the winter.

There is another way of abstracting honey from a hive which we have seen, and which we recommend to those who wish to enjoy the luxury of fresh honey. The hive is made of four boards, each about three feet long, and about one foot wide, nailed together; both ends are closed by other pieces of board, a foot square; that at the end where the entrance is intended (and it is to be observed that the hive is to be laid flat upon a bench) is nailed on, the other is hung at the top by hinges, and is fastened down by a button or hasp.—When honey is wanted, it can be had at *any time;* it is procured in the following manner: raise the back end or door a very little, and hold under it for a few moments, a burning rag—the Bees will immediately leave that end of the hive and flee to the other: this being done, you may then raise the door, and take out, unmolested, as many pieces of beautiful honey-comb, *of the size of the box,* as you have occasion for. Upon closing the door again, the Bees will immediately go to work to fill up that part of the hive which has thus been made vacant, and should you have but one hive, and have occasion for more fresh honey again a few days after, you will find it already prepared for you by this laborious little insect.

LADIES' DEPARTMENT.

(From the Journal of Health.)

The Summer Complaint of Children.

Nearly one-fourth of all the deaths among children under two years of age, in the middle and southern states, are reported to be from the summer complaint alone. To this appalling fact, the attention of parents ought frequently to be directed, more especially as the disease in question is one, the prevention of which lies almost entirely within their own power.

Its chief causes are heated and impure air and errors in regard to diet; hence the disease is almost solely confined to large and crowded cities, and is most prevalent among the children of the poorer classes, who inhabit narrow and confined streets, courts and alleys,—who are badly nursed, and have not a sufficient attention paid to the cleanliness of their persons and clothing. In the country it is seldom met with, excepting in the neighborhood of marshes or of low, wet, and otherwise unhealthy situations.

Children should occupy, always, the largest and most airy room in the house; if possible, on the second floor. The room should be guarded from exposure to the direct rays of the sun, while a constant and free ventilation is kept up. The utmost cleanliness must also be observed in the room as well as in the person and clothing of the children.

During the summer months, the daily use of the cold or tepid bath, while it ensures the cleanliness of the skin, is a very powerful means of preventing this disease. It should not, therefore, be neglected, provided there is no circumstance connected with the health and constitution of the child to forbid its employment.

In clear weather, and in the cool of the day, children should be frequently carried abroad, in the most open and healthy parts of the neighborhood; or when the parents have it in their power, a considerable benefit will be derived from repeated rides, in an open carriage, into the neighboring country.

The clothing of children should be loose and of a soft texture; and carefully accommodated to the state and changes of the weather, so as to preserve the body of an *even and moderate* temperature. As already remarked, cleanliness of the clothing, as well as of the skin, is always indispensable to the health and comfort of children, and should, therefore, be zealously attended to.

The breast milk of the mother is the proper and only natural food for an infant; "nature does not afford, nor can art supply, any effectual substitute for this fluid." To it, therefore, should children be almost entirely confined, if circumstances will allow of it, until the process of teething has made some progress. After weaning, their diet should consist of such simple articles as are nutritive, easy of digestion, and but little stimulating; all spices or seasoning, with the exception of salt, all sorts of cakes and pastry, butter in every form, unripe and decayed fruit, and distilled or fermented liquors, must be carefully avoided.

When the disease is present, *many* of the foregoing directions are equally important to ensure its removal, as they are previously, in order to guard against its occurrence. The circumstance of their being, in general, so little attended to, is one cause of its great fatality.

Parents should, in this, as in every other complaint of children, be upon their guard against the pretensions of empiricism. Let them be assured that no remedy can be devised capable of curing, effectually, the summer complaint of children, unless the latter are removed from the influence of those causes by which the disease has been produced, when such removal is effected at a proper period, the lives of their children may, in almost every instance, be preserved.

(From the Journal of Health.)

HINTS TO MOTHERS.

Parents, and especially mothers, should be aware that the natural effects of the extreme heat of the season, and of teething, separate or conjoined, is feverish disturbance, diminished appetite, impaired digestion in their children. They ought also to know that whatever deviation is made from extreme simplicity and regularity of the diet of these young beings, will necessarily aggravate their restlessness and sufferings. All the trash of fruit, cakes, and pastry of any kind; coffee or any beverage except pure water, or toast water, ought to be sedulously withheld. The question at this time is not what is agreeable at the moment to the child, or chimes in with the oftentimes silly fondness of the mamma, but what will be most likely to guard it from an attack of summer complaint, and in fact to save its life. To preserve coolness of the skin by light and loose dress; bathing twice daily, in lukewarm water, if the skin be hot and dry, regular airings out of doors, in the morning; and on approach of evening; the bed-room well ventilated, but the air so admitted that it shall not blow directly on or over the bed, are among the additional means of prevention. Finally, we will conjure mothers, when their infants are unwell at this season, we might add at any season, to give no medicine on their own responsibility—to listen to no neighbouring gossip—to be deceived by no impudent quack; and every quack is as impudent as he is generally ignorant, or he would not be perilling the lives of his fellow creatures, by thrusting on them alleged sovereign cures for bowel complaints, under the title of vermifuges and the like. If mothers delay in sending for physicians, let them also delay in giving physic. They may, when their infants are ailing, sometimes arrest diseases, by curtailing the usual quantity of food, and giving it of a still simpler quality, or what is still better, by enforcing abstinence, except from such drinks as rice, or barley, or gum-arabic water, slightly sweetened or salted as may be most agreeable. Beyond this, mothers are bewildered; and if they will go blundering on, theirs be the penalty, as theirs assuredly will be the blame.

Never dispute if you can fairly avoid it.

MISCELLANEOUS.

[Comparative durability of Oak and Chestnut.—In the transactions of the Society of Arts, in England, there is an account which states that posts of oak and others of chestnut were planted in Somersetshire—when they had to undergo repair in 18 years, which is longer than oak posts would last in this country, the oak posts were found to be unserviceable and the chestnut very little worn. The oak posts were renewed, the chestnut remained, and in twenty-five years afterwards they were not so much rotted as the oak. In 1772, a fence was made partly of oak posts and rails, and partly of chestnut posts and rails—the trees made use of were of the same age, and were what may be termed young trees. In nineteen years, the oak posts had so decayed at the surface, as to need to be strengthened by spurs, while the chestnut required no such support. A gate post of chestnut, on which the gate had swung for fifty years, was found quite sound when taken up, and a barn constructed in chestnut in 1743 was found quite sound in every part in 1792. It should seem therefore, that young chestnut is superior to young oak, for all manner of wood work that has to be partly in the ground.]

FANCY WOODS.

Even at a comparatively early stage of the arts, mankind appear to have made use of the bright or variegated colours of wood, to give beauty both to their dwellings and their furniture. The temple built by King Solomon was overlaid on the inside with boards of cedar:—"all was cedar; there was no stone seen;" and among the most ancient specimens of ornamental furniture that are to be met with, we find that attempts have been made to heighten the effect by the contrast of various kinds of wood. Although, both in the materials and the designs, these are inferior to the productions of modern art, many of the cabinets which are still preserved have much higher claims to notice than their mere antiquity.

In all these works a veneer or thin plate of the fancy wood is laid down in glue, upon a surface of a plainer description. This process is of course cheaper than if the whole work were made of the solid fancy wood. The beauty of fancy wood arises in many sorts from its being cross-grained, or presenting the fibres endways or obliquely to the surface. These different positions of the fibres, as well as their different colours in grained woods, give a clouded and mottled variety to the surface; and when some of the parts are partially transparent, as is the case with fine mahogany, the surface gives out a play of different tints, as the observer shifts his place, or the light falls upon them, and consequently is reflected at different angles.

In the earlier stages of the art of cabinet making, and before the forests of the tropical regions had been explored for those beautiful woods which have since added so much to the elegance of modern furniture, the veneering and ornamenting were in woods of native growth. None of these have the deep and warm tints of the finest of the foreign, but the figures with which they are marked are often very beautiful. The yew, which, with its other tints, blends a certain trace of pink or rose-colour, and when it is gnarled or knotty, has a very rich appearance, was the wood used for the finest and most costly works. The common veneering timber was walnut; but as that has but few of those variegations, which are technically termed *curls*, the works ornamented with it were rather deficient in beauty. The knotty parts of "pollard" oaks, and "pollard" elms, are much better adapted for the purpose of ornament; but as the grain of both is open, and as it is apt to *rise*, and as the earlier cabinet-makers were not so well acquainted with the art of varnishing, as those of modern times, the beauties of these woods were not turned to the proper account.

When mahogany was first introduced as a cabinet timber, it seems to have been in the dark-coloured, hard, and straight-grained trees, which are now used for chairs, and other articles, in which the solid timber is preferred; and on that account mahogany was not much used in combination with other woods. When, however, its great value was known—the ease with which it can be cut, the improvement that varnish gives to its colours, the firmness with which it holds in glue, and the improvement which, when properly taken care of, it gains in time—it was found that good mahogany was much too valuable a timber for being used solid; and it began to be employed as the staple timber in veneering. Other foreign woods, some of them lighter and others darker, were employed for borders and ornaments: but mahogany was used for the body of the work; and when it came to be so used, a great revolution was effected in the art of cabinet-making. On the first introduction of mahogany, the same process was resorted to, that had before been practised with the walnut and other woods, and effect was sought to be produced by quartering pannels, forming them of *gyrony** of sectors, with the grain in opposite directions, and other fantastic and unnatural arrangements; but in course of time, a better taste was introduced, and the object was to make the whole surface have the same appearance as if the work had been made solid out of the rich timber. This was one step toward the attainment of a purer style; but the continuity of the surface was still interrupted by ill-sorted additions. The breadth of the mahogany, which would in itself have been beautiful, was broken by bands and strings of other wood, without much regard to the harmony of the colours; and thus that which, with the veneer alone, would have been chaste and classical, was reduced to a piece of patch work.

The veneering, whether done in mahogany or any other wood, was at first very expensive. The veneers were cut by the hand; and thus the piece cut off was of unequal thickness in the different parts, the wood was mangled by the operation of cutting, and the finest pieces, which, as has been said, are cross-grained, or have the fibres across their thickness, were always in danger of being broken. It had been found that veneers laid upon good bodies of timber, whether of the more coarse mahoganies, or of any other kind, were better, in point both of beauty and of standing without warping, than solid timber; but the cutting of the veneers by the hand was very laborious, and wasted the timber, so that, though the plan was a good one, it was expensive.

When the harder and more unmanageable species of fancy woods came to be used, the difficulty and expense were further increased; and though more beauty and variety were imparted to cabinet furniture, they were imparted at a corresponding increase of expense. Nor was it till the invention of machinery for the cutting of wood into veneers, by Mr. Brunel, that we had the full advantage of the beautiful art of veneering.

The machinery used for this purpose consists of circular saws, driven by mechanical power, and they have so diminished the price of cutting veneers, that the saving is immense. Thus, those classes of the people who, not long ago, had even the favourite articles of their furniture in deal, or in the coarser woods, which are the growth of this country, now have them in mahogany, or in some of the less common foreign woods. Independently of their superior beauty, (and that is a matter of more consequence than many would be disposed to allow,) these foreign woods have the advantage of durability, both in their structure and their colours. There are few of the indigenous woods of Britain into which the worm does not eat; and there are none of them in which the colours have not a tendency to come to the same shade, when long used, unless they are protected by varnish; while, on the other hand, the fancy woods from the tropical countries, are generally, if not universally, proof against the worm in England, and they are not apt to lose their colours. Thus the introduction of machinery, for the purpose of cutting veneers, has been a material saving both in the cost and the wear of furniture, while it has enabled the workman to extend to a surface of thousands of feet, any fine piece of timber that he may meet with, and which, before the invention of that machinery, he could not have extended to as many hundreds.

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* A term of heraldry, in which a shield is formed in sectors from the centre.

The value to which a single log of fine timber is turned, by means of the improved sawing machinery, is really incredible to those who have not witnessed the operation. Thus, when the cabinet-maker has occasion for veneers, he has only to purchase a log of the wood which suits his purpose, send it to the saw mill, and he has it returned cut up to the thickness that he wishes, in a very short time, and at a trifling expense.

In the vicinity of London, there are several mills for the cutting of veneers; but we do not know that there are any in more general or more constant employment than one we have had an opportunity of inspecting—that of Messrs. Watson, at Battersea, which was set up, about sixteen years ago, by Mr. Brunel. Their apparatus is driven by steam, and consists of a number of circular saws, the largest of which is eighteen feet in diameter. One side of those saws is a plane kept perfectly true, by a strong and well bound framework, to the circumference of which the saw is attached. The teeth of the saw are rather large than otherwise, in order that it may not clog with the sawdust, and thus tear the finer veneers, and it revolves with considerable velocity. The log of timber which is to be cut into veneers is fastened upon a frame, with the piece in the direction in which it is to be cut, in a vertical position. The frame that carries forward the log is moved at a rate which may be varied according to the quality of the timber that is cut. It has a rack on the under part, in which a pinion works. In cutting coarse stuffs, such as the soft and straight-grained mahogany, of which the bottoms of drawers, and other internal works of an inferior kind, are made, the log moves forward, and the veneer is cut at the rate of about one foot of length in four seconds. Allowing the depth of the log to be two feet, the quantity of veneer taken off would, by one of those machines alone, be two hundred and forty square feet in an hour. Where the wood is harder, or of more value, the motion is considerably slower; but, even then, the quantity cut by one machine, as compared with that which sawyers would cut in the same time, is, independently of the saving of wood, and the superiority of the veneers, almost incredible to any one who has not actually witnessed the operation.

The circular saw of eighteen feet diameter, at Messrs. Watson's mill, makes thirty-two revolutions in a minute. We observed a veneer of a log of mahogany, four feet six inches long, by thirty-three inches wide, cut in eighty seconds. The smaller saw, at which inferior timber is cut, has a quicker revolution, called a tumbling motion; and by this we noticed a veneer of a piece of mahogany six feet six inches long, by twelve inches wide, cut in twenty-five seconds.

The quantity of veneer that can, by means of these machines, be sawed out of a given quantity of timber, is astonishing. Those who are reckoned respectable cabinet-makers do not, in general, wish to have more than eight or nine thicknesses out of the inch; but those who manufacture furniture for occasional sale, and are in consequence indifferent as to the quality of the timber, and the durability of their work, often have the inch cut into fifteen or sixteen thicknesses. The extent to which a log cut in this last manner would extend, is wonderful. Suppose a log fifteen feet long, and three feet in each of its other dimensions, cut into fifteen thicknesses to the inch, it would be spread out to the vast expanse of about an acre and three quarters; and, when cut for the more respectable part of the trade, it would cover nearly an acre. Now, when it is considered that the mahogany, or other wood that forms the most beautiful surface, is seldom that which is the best adapted for solid work, it is easy to be conceived how much advantage must result from this invention.

Veneering in fancy woods has sometimes been compared to gilding and plating, but the process does not gain by the comparison; as the covering of one wood with another is a much nearer approach to solidity than the covering of one metal with another. While the cabinet article is kept in such a state as that the glue is not dissolved, the covering of beautiful wood does not wear out; and thus with a vast saving in the more costly material, there is the same durability, as if nothing but that material had been used for the whole. There is another advantage in the use of fancy-woods on the surface; the body of the article upon which the fancy wood is laid can be much better put together than if it had formed the external part of the article. Where that is the case, dovetails or mortises cannot be wedged without an external seam; but in veneering, the body of the article can be put together with every degree of care and strength, and the veneer will hide the whole.

The slightest observation of the domestic life of the middle and humbler classes will shew that, within the last thirty years, there has been a manifest improvement in the appearance of the household furniture of this country. A century ago, even in the mansions of the rich, though there was occasional luxury both in the materials and the forms of their furniture, much of it was mean and ill-fashioned. There were, indeed, splendid cabinets, to be exhibited at seasons of festivity, filled with rare porcelain and laden with costly plate; but the table for ordinary use was of rough unpolished oak, and the chairs were equally plain and unornamental. The Windsor chair, made of elm, and a heavy deal table, were generally found in the tradesman's parlour, even up to a somewhat recent period. The general introduction of mahogany, and the comparative cheapness of furniture made externally of this beautiful material, (principally in consequence of the extreme thinness into which veneers can be cut,) have introduced a more elegant description of furniture even into the commonest houses. In this, there is a national benefit. A taste for comforts and elegancies, universally diffused throughout society, not only calls into action a great deal of mechanical ingenuity, and employs considerable capital, but it gives even to the humblest a sort of self-respect, inferior, indeed, to purer motives, but still operating to produce something of independence, and a desire to maintain the possession of these comforts and trifling distinctions, by honest industry. But the general adoption of articles of luxury, such as well-made furniture, by the bulk of the people, has a natural tendency to make the wealthy desirous of procuring articles not so accessible to the many; and, in this way, there is a constant demand not only for new patterns in furniture, but for new materials of which such furniture should be made. Our commerce with all the known world has enabled the dealers in wood constantly to introduce new sorts; and even our native timber, such as oak and elm, by the ingenuity of the workman, has been converted into the most beautiful and the most expensive of the articles of common use by which the rich are surrounded. The large roots of a fine oak have, in this manner, been rendered extremely valuable; and, when cut into small veneers, and inlaid with that skill which constitutes the art of the cabinet-maker, have produced very high prices when manufactured into tables. Mechanical skill converts the commonest materials into articles of high price; and this is one of the best directions which can be given to the luxury of an age.

Aim at cheerfulness without levity.

(From the Magazine of Useful Knowledge.)

STATISTICS.

An estimate of the comparative amount of animate and inanimate force applied to Agriculture and the Arts in France and Great Britain.

Mr. Dupin, estimates the animate force of France to be equivalent to 12,609,057 effective men; two thirds of which are engaged in agriculture, and the other third in manufactures, commerce, &c. He also estimates the force of the horses, oxen and asses employed in agriculture, to be equal to the power of 28,872,000 men; and those employed in manufacturing, &c. equal to the power of 2,100,000; which gives a total of the estimate force of

France equal to	43,581,057 men;
namely: employed in agriculture	37,278,038 men;
in commerce, manufactures, &c.	6,303,019

Assuming the population of Great Britain to be 15,000,000, and that two thirds of the effective force are engaged in commerce (estimating it in the same ratio as that of France), in manufactures, &c. and that the horses, oxen, &c. also, used in agriculture, are equivalent to 22,500,000 men, he makes a total

animate force engaged in agriculture of	24,632,446
That of Ireland is estimated at	7,455,701
Total,	32,088,147
On the same data, the human force of Great Britain employed in Commerce, Manufactures, &c. is	4,264,893
To which add that of horses, oxen, &c. equivalent to	1,750,000
	6,014,893
That of Ireland,	1,260,604
Which gives a total animate commercial and manufacturing force equal to	*men*—7,275,497
Total animate force of Great Britain, equal to	*men*—43,581,075

The inanimate force employed in France, such as steam engines, water power, &c. the same author estimates to be equal to the power of 5,233,333 men; and that of Great Britain equal to the power of 20,842,667 men: consequently, we have the following result of the comparative estimate of the animate and inanimate force employed in both countries; namely,

	FRANCE.	GREAT BRITAIN.
Agricultural force,	37,278,038	32,088,147
Commercial and Manufacturing do,	11,536,352	28,118,164
Total,	48,814,390	60,116,302

EMIGRATION.

The influx of foreigners into the United States, will probably be much greater during this, than any former year; and will, probably, not fall much short of 50,000 persons. Those from England and Scotland, Cobbett says, will not fall short of 13,000, and will bring with them not less than £3,000,000 sterling in gold, (about $12,450,000.) It is also stated, that great numbers of the middling classes of Swiss are on their way to "the land of freedom and of promise." These are the kind of men we want; if they will only bring *money, industry, good morals* and *steady habits* with them, we will bid them a hearty welcome to our shores. [*Ib.*

INHABITANTS OF THE WORLD.

Malte Brun estimates the whole number of the inhabitants of the world at six hundred and forty millions; of which, 228,000,000 are Christians; 310,000,000 Pagans; 100,000,000 Mahometans, and 4,000,000 Jews. Of the Christians, he estimates that there are 116,000,000 Catholics, 70,000,000 belonging to the Greek Church, and 42,000,000 Protestants. [*Ib.*

Farina of Potatoes.—The quantity of farina which potatoes produce varies not only according to the species, but according to the period when the extraction takes place. The variations produced by this last cause are nearly as follows:—Two hundred pounds of potatoes produce of farina, or potato flour, in

August, from	23 to 25 lbs.	March, from	45 to 38 lbs.
September	32 — 38	April	38 — 28
October	32 — 40	May	28 — 20

The extraction of the farina should be discontinued at the period when the potatoes begin to grow, the farina being destroyed by germination. Red potatoes produce a smaller quantity of farina. Those which are blue on the outside give little; but it is of a good quality: the white, which is often tinged with red in the interior, is the least proper for this extraction. The best of all is that which has a yellow tint, as its farina is of very good quality, and abundant.

Spanish Politeness.—The Duke of Albuquerque, when he visited the wife of Sir Richard Fanshawe, the British Ambassador at Madrid, in the reign of Charles the Second, said, "Madam, I am Don Juan de la Cueva, Duke of Albuquerque, Viceroy of Milan, of his Majesty's Privy Council, General of the Galleys, twice Grandee, the first gentleman of his Majesty's bed-chamber, and a near kinsman to his Catholic Majesty, whom God long preserve; and then rising up, and making me a low reverence with his hat off, said, "These, with my family and life, I lay at your Excellency's feet."

THE FARMER.

BALTIMORE, FRIDAY, JULY 30, 1830.

☞ **Rail Road Experiments.**—We learn from the Liverpool Courier of the 16th June, that the directors of the Liverpool and Manchester Rail Road, made an interesting experiment on Monday the 14th. The directors and several other persons took seats in two coaches, to which were attached seven wagons loaded with stone, and a tender, the whole drawn by the "Arrow" locomotive engine. The gross weight of the whole, was thirty nine tons. They left Liverpool at a quarter before 9 o'clock, and arrived at Manchester 32 miles, in two hours and twenty-one minutes, twenty minutes of which were occupied in taking water. Returning, between forty and fifty persons occupied the two coaches, and arrived in Liverpool in one hour and thirty four minutes. In the outward passage with a full load, the speed was about 16 miles an hour, and on return, the average speed was 20 miles an hour, and in passing over Chat Moss, the carriages proceeded for a time at the rate of 27 miles an hour.

These facts are very interesting, as connected with the progress of our greater work to the Ohio. We understand that the directors here have been, very judiciously, awaiting the result of this experiment with finished engines at Liverpool, and that being so much more satisfactory even than was expected, no time will be lost in placing an engine of the same structure on our road. Then we shall leave here in the morning, pass Carroll's manor at sun-rise, just as the old gentleman is plunging, according to habit, head foremost into his limestone bath; breakfast in Frederick, on sausages and saurcraut, dine on wild turkeys and venison, with friend Cunningham, in the glades of Alleghany; and sup on the Ohio upon muss-ki-non-gays; consuming only *one-fourth* of the time, that would be required by a canal boat in the act of *passing locks*.

There are 400 locks between Washington and Pittsburgh, allowing 15 minutes to each, which is as little as it takes in England, makes 100 hours, or 4 days to get through the locks, counting nothing for the distance not embraced in these locks, which is at least 300 miles, which, at 4 miles, are 3 days more, making the trip 7 days, and there is no hazard in predicting that this is less than the average time that would be consumed in making the trip.

By locomotive and stationary engines, passengers can be transported on a level or over an inclined plane, at the rate of 20 miles an hour, with perfect safety, and great ease to themselves; the distance from Baltimore to the Ohio will not exceed 350 miles, and over this line, passengers will arrive in 17½ hours; or allowing for contingencies, in 20 hours!! The mail will bring a love letter as fast as a carrier pigeon could do! How much our grand sires lost by not living in these times!—What an age of revival this would be for old Leather Stockings! Could poor old Galileo come to life, he would not now be required to forswear his belief that the earth went round the sun, and not the sun round the earth!

☞ **Ruta Baga.**—The liberal donation by an eminent agriculturist, of a large quantity of ruta baga seed for gratuitous distribution, which we noticed last week, has induced us to refer to our late English publications for the best mode of culture, and the reader is referred to the agricultural head for the result. We would suggest that due allowance be made for the great difference of soil and climate between England and the United States. For example, the remark that small turnips are produced in the south of England when the seed is sown in August, should not deter farmers in the middle and southern states from sowing in that month, as our respected friend has never failed in obtaining a full crop of good sized turnips; and he considers from the middle to the latter end of August the proper time for sowing the seed. A much more simple mode of culture than that laid down by Loudon, will answer every purpose, where but small fields are cultivated, as in this country. Let us beg of our friends to apply freely for the seed, as we have enough for all, and shall be able to furnish each applicant with enough to seed from half an acre to an acre of ground. It will be perceived, that the article we copy from Loudon, treats of the cultivation of turnips generally, including ruta baga, and that the only variation from the general culture, necessary with ruta baga, is the distance at which the plants should be left standing—ruta baga requiring a foot or more.

MAGAZINE OF USEFUL AND ENTERTAINING KNOWLEDGE.

We have before us the two first numbers of a work, entitled the "Mechanics' and Farmers' Magazine of Useful Knowledge," which is to be continued monthly, under the new title at the head of this article, and conducted by Messieurs Sargent and Halsey, of New York. The present numbers contain much useful matter, and the best evidence of our opinion, and the best proof of its utility, will be found in the extracts which we make from the work, under our miscellaneous head. The following notice of the work is taken from the Report of the Committee of the American Institute:—

"That the Editor has attended a meeting of the Committee, and submitted a specimen of the first number, which will be published in a few days; that the plan marked out for this publication, is such as to render it practically useful; that it is, in a particular manner, calculated to promote the chief objects which the Institute has in view; and from the character of the gentleman who is engaged in it, and the prospect held out to him of contributions toward its pages, the Committee are of opinion, that it promises to be a successful attempt at disseminating useful information in a style well adapted to its purposes. Its leading object is to present the latest improvements in science and the arts in such a form as will enable the working classes of the community to apply them advantageously in their respective occupations, and with a view to render the whole more acceptable, useful information relating to the Statistics, and Internal Resources of this country, will be introduced. Should this publication realize the expectations which the Committee have formed of it, and should it meet with that encouragement which they think it will deserve, it may hereafter present a convenient medium, in addition to similar publications already established, for communicating to the public the proceedings of the Institute. In the present state of the resources of the Institute, however, the Committee are of opinion, that it would not be expedient to adopt any measures on this subject; but they beg leave, respectfully, to recommend the publication to the consideration of the members, individually, and of the public in general.

J. LYNCH,
T. B. WAKEMAN,
June 10, 1830, H. E. DAVIES."

(From the Norfolk Beacon of July 22.)

Meal.—This necessary article of subsistence is now retailing in our market at *one dollar* per bushel, while corn is selling by the cargo at 45 a 46; and by the hundred or two bushels at 50 cts.—(see our prices current,)—we are aware that the inadequacy of the supply is owing to the want of water in our mill ponds; but surely this circumstance does not justify an advance of nearly one hundred per cent. on the relative value of the Grain and Flour. We would advise our farmers, millers, and others, having an opportunity of furnishing this necessary of life, to send it into our market as soon as possible. They may, we think, depend on getting 62½ cents per bushel by the quantity.

(From the Norfolk Herald.)

The Common Council of Norfolk, on Wednesday, 21st, passed an ordinance, authorising a subscription of stock, to the amount of *twenty thousand dollars*, in the Virginia and North Carolina Transportation Company. This sum, it is estimated, will enable the company to supply all deficiencies in the process of navigation and transportation, (which have heretofore limited their operations,) and to afford facilities, if required to individual enterprize. It gives us pleasure to state, that the fiscal affairs of the Corporation are in so healthy a condition as fully to justify this act of liberality for public good.—The present revenue of the borough is sufficient to provide for the interest of the debt that will thus be incurred, and still leave a handsome surplus; though, upon reflection, it would have been more equitable and proper, perhaps, to have provided for the payment of the interest by a tax on the land owners who will be more largely and immediately benefited by the appropriation.

LATEST FOREIGN NEWS.

By the packet ship New York, intelligence from England to the 16th June has been received at New York. From the 11th to the 14th the king appeared to be getting better, and some of the papers expressed hopes of his final recovery, while others consider these alleviated symptoms like the fitful sunshine at the close of a cloudy day. Parliament had passed Sir James Macintosh's motion for abolishing the punishment of death for forgery, except for the forgery of wills.

The news from the continent is of little importance. No information had been received from the French expedition, further than that it was detained at Majorca by contrary winds. The elections seem to absorb all the attention of the people of France. They had not commenced, but both parties were in active preparation.

A paragraph under date of frontiers of Russia, May 28, mentions that Don Pedro intends sending ambassadors to all the courts concerning the Regency of Terceira; that the Emperor of Russia, who is said to have a great antipathy to Don Miguel, will probably recognize the Regency of Terceira, and the reign of Don Miguel will then be but of a short duration.

We understand that Lord Castlereagh has been dismissed from the Admiralty Board, with little ceremony, on account of some insubordination on the part of his father, the Marquis of Londonderry. We have not heard who is to succeed him, but, of course, the place will be filled out of the army list.—*Standard.*

Prince Frederick of the Netherlands is said to have declared, with regard to Greece, that he has no intention of accepting a crown which Prince Leopold has refused. Prince Emilius, of Darmstadt is now spoken of as the new sovereign.

Letters from Palermo speak of a violent eruption of Mount Ætna. There are seven openings on the declivity of this mountain, and several villages have been destroyed. A shower of ashes, carried by the hurricane which at that time prevailed all over the Mediterranean, and in which some of our vessels perished, has extended as far as Rome. Great injury has been sustained in Calabria, and great numbers of olive trees have suffered.

EXPEDITION AGAINST ALGIERS.

Captain Silliman, 13 days from Guadaloupe, informs the editors of the New York Commercial Advertiser, that a ship had just arrived there, which left Havre on the 15th June. The master stated, that a telegraphic communication was received the day he sailed; that the French expedition had succeeded in landing 15,000 men a little to the northward of Algiers. This is later from Havre than the advices from England.

London Corn Exchange, June 14.

Last week there were considerable arrivals of most kinds of English and foreign grain, and there was a tolerably fair supply of flour. This morning's fresh arrival is, however, very moderate. The accounts of the wheat crop are unfavourable, as the weather continues so unsettled. Superfine English wheat and the best foreign red have obtained 1s. to 2s. per quarter advance since last Monday, but other descriptions are not reported any higher. There is a very slack demand for barley, and this article is full 2s. per quarter cheaper. In beans and peas there is no variation since this days se'nnight.

Liverpool Corn Exchange, Tuesday, June 15, 1830.

The arrivals of foreign wheat and flour are again considerable. In the early part of the week the wheat trade was dull, but there was no disposition on the part of holders to give way; subsequently a little revival was experienced, and good qualities of both foreign and Irish wheat brought fully previous rates. The scarcity of oats is becoming every day more apparent, and has, at length, induced our millers to purchase freely, the sales of the week having been to a large amount, and at an advance of 1d. to 2d. per bushel. No change has occurred in the value of barley. Upwards of 20,000 barrels of American flour have been sold during the week at 25s. 6d. to 26s. per barrel, and 27s. is now firmly demanded, with few sellers. Several cargoes of oats, under lock, have found buyers at 2s. 6d. to 2s. 7d. per 45lbs.

This morning's market was not numerously attended by country buyers, but having few samples of fine wheat offering, such were readily sold at an advance on last Tuesday's quotations of 1d. to 2d. per bushel; other qualities were also held for a similar amendment, and several parcels of bonded were taken on speculation, at 7s. to 6s. 3d. per 70lbs. Flour was 1s. to 2s. and Oatmeal 2s. to 3s per pack dearer. Sales to a large amount were again made of oats, at fully the advance noted above. Most of the Irish barley was picked up at a small improvement; foreign was also 1d. to 2d. per 60lbs. dearer.

Liverpool Cotton Market, June 14.

Our Cotton market, in the early part of the week, remained dull, but subsequently the demand has improved, and the private sales have fully realized our last quotations. The public sales on Friday, however, went off heavily, at a decline or ½d, on Sea Island, and 1d per lb. on Stained. Of 2,580 bags offered, 300 only were sold, at 12½d. to 13d. for middling to fair, and 15¼d. to 15½d. for good fair to good quality, and 320 Stained at 6¾d. to 10¾d. including a few very good at 11¾d. per lb. The private transactions comprise 80 Sea Island, at 13d. to 14d. with a few at 18d. and 10 Stained at 9½d.; 3,380 Bowed, 6 1-8d. to 7 1 8d.; 1,980 Orleans, 6¼d. to 7¾d., with 10 a 8¼d.; 3,270 Alabama and Mobile, 6d. to 7d.; 340 Pernambuco, 7¾d. to 8¼d.; 1,730 Maranham, 6 3-8d. to 7¾d.; 480 Bahia, 7 3-8d.; 20 Carthagena, 5½d.; 70 Demerara, 7½d. to 9¾d.; 20 Barbadus, 7d.; 550 Egyptian, 8¼d. to 8 7-8d., with 10 at 9d.; and 90 Surat, at 4¼d. per lb.; making together 2,640 bags.

London, June 15, *half past* 3 *o'clock.*

Cotton.—There are small orders for East India in the market, which cannot be executed in consequence of the firmness of the holders. This market has remained very dull since our last. The prices remain steady since the last quotations.

Prices Current in Boston, July 23.

Apples, best, bbl. .400 a 5.00 *Beans*, white, bushel. .87 a 1.10. *Beef*, mess, bbl. 9.25 a 10 50; cargo No. 1, 9.00 a 9.50; No. 2, 6.50 a 6.70. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, 7. a .8; skimmed milk, 3. a .5. *Flour*, Baltimore Howard-st. 5.37 a 5.53; Genesee, 5.37 a 5.75; Rye, best, 3.50 a 3.87. *Grain*, Corn, bu. .46 a 55; Rye, .65 a .67; Barley .67; Oats .37 a 40. *Hogs'-Lard*, 1st sort, new, lb. 9. a .9.50. *Pork*, clear, bbl. 17 a 18; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 2.00 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, —— Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .33 a. 38; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet 1.50; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .50 a .55; do. do unwashed, .30 a .35; do. three-fourths, washed, .42 *a* .45, do. half blood, .38 *a* .42; do. quarter, washed, .35 *a* .40; Native, washed .35 a .37; Pulled, Lambs', 1st sort, .— a 50; do. 2d sort, .38 a .42; do. Spinning, 1st sort, — a .40.

Prices Current in New York, July 24.

Bees-wax, yellow .20 a 22. *Cotton*, New Orleans .10½ a .13; Upland, .9¾ a .11½; Alabama, .10 a .12. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .17. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a ——; Canal 5.00 a 5.37½; Balt. Howard st. 5.12½ a 5.25; Richmond city mills, —— country, 4.68 a 4.75; Alexand'a, 4.75 a 5. Fredericksburg 4.69 a —— Petersburg, 4.75 a ——; Rye Flour, 3.37½ a ——; Indian Meal, per bbl. 2.50 a —— per hd 12.75 a 13.00. *Grain*, Wheat, North, —— a ——; Vir. 1.05 a 1.07; Rye, North, — a 66; Corn, Yel. Nor. .54 a 56; Barley, — a — Oats, South and North, .33 a .40; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 10.00; prime a 6.25 a 6.75; cargo 5.— a —— Butter, N. York, 12½ a 15; shipping, 6 a 10; Lard, .9 a .—; Pork, mess bbl. 13.50 a 14.00; prime 9.75 a 10.00; cargo ——.

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ON HAND, and constantly manufacturing, a general assortment of AGRICULTURAL IMPLEMENTS, of the best materials and on the latest and most approved plans. The Subscriber's WHEAT FANS are of the latest improvement, and will be warranted to please. His Patented CYLINDRICAL STRAW CUTTERS have never been surpassed in this, or any other country, for durability, facility of cutting, and adaptation to any power and every kind of long forage; and also for cutting rags for making paper. All persons making, vending or using the aforesaid patented improvements without proper authority from the Patentee, must expect to meet the penalty of the law for all such offences. Also on hand, a general assortment of GARDEN SEEDS, grown and warranted by the Messrs. Landreths, of Philadelphia. J. S. EASTMAN.

☞ All orders promptly attended to.

ALMANAC.

1830. July.—Aug.	Sun. Rises. H. M.	Sun. Sets. H. M.	Length of days. H. M.	Moon. sets. H. M.
Saturday,.... 31	4 55	7 05	14 10	1 40
Sunday,...... 1	4 57	7 03	14 06	2 20
Monday,..... 2	4 58	7 02	14 04	3 10
Tuesday,.... 3	4 59	7 01	14 02	4 00
Wednesday, 4	5 0	7 00	14 00	4 55
Thursday,... 5	5 1	6 59	13 58	rises.
Friday,....... 6	5 2	6 58	13 56	8 15

Full Moon—4th, 8h. 15m.—Morn.

BALTIMORE PRICES CURRENT.

Baltimore Markets.—A trifling advance in the prices of flour has taken place since our last, the wagon price for Howard street from new wheat being $5 12½. The receipts still continue small. There is not much doing in the article. As wheat begins to come in more freely, the prices have declined a little. There is very little doing in beef on the hoof, and the prices range about the same as for a few weeks past.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a 28 00—St. Domingo, 8.00 a 15 00. The inspections of the week are 249 hhds Maryland, 46 hhds. Ohio; total 295.

Flour—best white wheat family, $5 50 *a* 6.00—super. Howard-street 5.25—-city mills, 4.75 *a* 5—Susquehanna, ——; Corn Meal, bbl. 2.25——Grain; best red wheat, new 95;—best white do. new 1.00 common red 85 *a* 90——Corn, white, 45 *a* .46——; yellow .47 *a* .——-Rye, .— *a* .48-—Oats, .25 *a* .27—Beans, .90 *a* 1.00-Peas, 40 *a* 50-Cloverseed, 3.75 *a* 4. Timothy, 2.50 *a* ———Orchard Grass, 1.50 *a* 1.75—Herd's, .75 *a* 1.25—Lucerne 30 *a* 37½ lb.—Barley,—Flaxseed, 100 *a* —-Cotton, Vir. 9¼ *a* 10½ Lou. 11 *a* 12—Alab. 9½ *a* .11—Tenn. 9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .22 *a* 22½; in bbls 23 *a* 24—Wool, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22-three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $210 *a* 212; Country, dew-rotted, 5.5½c. lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. —— *a* .4.25 Mackerel, No. 1, 6.50 *a* —— No. 2, 6.00—No. 3, 3.50 *a* ——Bacon, hams, Balt. cured, .9½ *a* .10—-Feathers, .— *a* 35—Plaster Paris, cargo price per ton, 3 80 *a* 3.90 ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 30.00 *a* 35.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.50 *a* 5 00—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

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AGRICULTURE.

(From the Complete Grazier.)

PRESERVATION OF MANURES.

As manures are of such indispensable necessity to the farmer, and dung is in general so important a manure, every possible method should be taken, not only to prevent it from being wasted, but also to improve it both in quality and in quantity. In no way are manures more wasted, than by too great exposure to the sun, air, and rains; hence various expedients have been resorted to, in order to prevent this loss. Such, for instance, are the mixing of dry earth, or other absorbent substances, which certainly will, in a great measure, prevent this inconvenience; the erection of slight sheds over dung-heaps with the same intention; the covering of these heaps with turf sods (the *grassy side* being *downwards,)* when the dung is to be kept till it be old; are by no means bad practices, as the turfs will, in the course of time, be converted into excellent manure.

The farm-yard is doubtless the most proper and convenient place for forming *dung-steads,* or *dung-meers,* as the repositories for this useful article are variously termed. For middle-sized farms one will suffice: for larger farms two or more will be necessary, for the proper management of dung. According to the usual practice, a pit is dug sufficiently deep to hold the soil which the farm may require; and into this are thrown waste fodder, fern, straw, leaves, coarse grasses, thistles, rushes, flags, and similar aquatic plants; litter, scrapings of the yard after the rain, sweepings of the kitchen, bones, ashes, shells, woollen rags, weeds, &c. which lie there and rot, until they are wanted for use. It has, however, been suggested by the late Dr. Darwin, to dispose the heap of dung on a gently-rising eminence, with a basin beneath, for collecting the superfluous water that may ooze from the heap. We would add, that if a shady spot cannot be obtained for this purpose, a slight shed should be thrown over the dung-stead, to prevent too much exposure to the sun, air, and rain; and that gutters should be so contrived, that all the waste water and urine of the yard, oil dregs, greasy water, bloody water in which meat or fish has been washed, old useless brine, the suds and waste water of the farm-house—in short, every possible kind of liquor that may be useful—may flow through them into the reservoir, or basin, and be preserved. Dr. D. further states (in his "*Phytologia,*") that some earth, weeds, saw-dust, or other vegetable or animal excrement, should be thrown into such reservoir; which will, in consequence, promote the fermentation and putrefaction of the substances therein contained, at the same time that the draining from the dung-heap will not be dissipated.

The necessary depots for manure being thus prepared, it will only remain for the farmer to avail himself of every possible matter, both of the vegetable and animal kingdom, for increasing and improving its quantity and quality. In addition to the various articles enumerated in the preceding paragraphs, we would observe, that before the winter or foddering season commences, the surface of the cattle-yard may be raised by spreading thereon dry swamp-mud, pond-mud, the dry scrapings of roads or ditches, and similar matters that can be procured. On this stratum may be spread a little lime, for the more speedily accelerating the decomposition of the litter, fern, and other tough vegetables that may be thrown upon it for that purpose; and, in case the season should prove too dry, the decay of the vegetable matters may be promoted by sprinkling them occasionally with water from the pump, or (which is preferable) with some of the liquor from the reservoirs at the bottom of the dung-steads. Every previous arrangement being thus made, the cattle ought to be kept within their yards throughout the winter season: where they are numerous, the surface of the yards may be removed to the dung-meers, and laid down afresh in the manner above mentioned.

With regard to the increasing of the quantity of manures, agriculturists are by no means agreed as to the point of allowing litter for their beasts to lie on, or of consuming their whole stock of hay and straw, and placing the floors in such a direction, that they may be kept clean by sweeping only, so as to render litter of any sort unnecessary. The latter practice was adopted by the late eminent breeder, Mr. Bakewell, is sanctioned by many eminent farmers, and, it is obvious, must produce the largest quantity of animal manure, from the straw and coarse food being consumed by lean beasts, while the richer and more succulent is eaten by the fattening beasts, whether neat cattle, sheep, or lambs. Both practices, however, may perhaps be united with advantage, where the surface of the yard can be raised in the manner above mentioned.

The augmentation of manure necessarily increases in proportion to the nature of their food. In chap. iii. pp. 132-152 of this work,* we have pointed out the various articles of the vegetable kingdom, that are best calculated for feeding and fattening cattle; and, we trust, have fully evinced the superiority of *soiling,* both as it respects the economical consumption of food, and also the production of manure. The quantity of manure, afforded by a farm, may likewise be materially increased by having *standing sheep-folds,* (*ante* p. 168,†) and especially by adopting the Flemish practice of keeping them beneath covered folds. For this purpose, in Flanders, the ground is marked out, and spread with dry sand, four or five inches thick; on this are erected slight sheds, in which the sheep are housed at night, a small quantity of fresh sand (for which dry peat, or any of the earthy materials above stated, may be substituted) being laid on every evening. This is cleared out once a week, and carried to a dung-hill, or spread upon the soil. The manure thus produced is admirably calculated, in the opinion of M. Quintine, for fertilizing almost every kind of ground, and in fact makes an excellent dressing for cold and stiff soils.

The most effectual method of raising a supply of manure for land, (especially in counties that are situated at a distance from the metropolis, so that they cannot be thence supplied with dung, &c.) in Mr. Middleton's opinion ("Transactions of the Society for the Encouragement of Arts, &c." vol. xvii.) consists in raising green crops for the purpose of feeding sheep, bullocks, or other animals on the land. "For," says he, "this is the only method by which the loss of nearly all their urine and dung, that unavoidably occurs under other systems of management, can be prevented; as there is a great waste, perhaps of half (including dung and urine,) in the stables, cow-sheds, fold-yards, and dung-hills, even under the best management. Under ordinary management three parts of this manure are lost; but in the soiling of tares, turnips, cole, clover, &c. in the fields, there is no loss: the whole is immediately applied, without the cost of carriage, to the enriching of the soil."—It is obvious, however, that much of the ameliorating properties of these manures, must necessarily be lost by evaporation, and otherwise be materially diminished; so that although (as in the county of Norfolk) the soiling of sheep with turnips may be carried on with great advantage on light lands; yet, upon the fullest view we can give the subject, we are decidedly convinced that, under proper management, stall-feeding in the summer with green, and in winter with dry food, is the most effectual mode of obtaining the largest possible quantity of animal manure.

In a former part of this chapter (p. 360,) the effect of human ordure, as a manure, has been stated; and as, according to the present method of managing it, much valuable fertilizing matter is inevitably lost, it has been suggested ("Communications to the Board of Agriculture," vol. i.) to form reservoirs, or pits; with floors of clay, or other material, impervious to liquid matter, as nearly as possible to the dung-heaps, and to connect such reservoirs to the privies by means of proper drains, furnishing them with covers, for the purpose of throwing in occasionally lime, peat, vegetable recrements, and other substances, that might be removed thence when they should be thoroughly impregnated and reduced to putrefaction, and be mixed with the common dung-heaps. In large towns and cities, where immense quantities of this kind of manure are annually produced, it is recommended to construct such reservoirs or basins with similar floors and drains, but upon a larger scale, so that their contents may be removed as often as necessary, during the night. Or, where large rivers flow through cities or towns, &c. reservoirs of this description might be formed on their banks, and the ordure be thence conveyed into covered boats or barges; or this manure might probably be conducted, through the medium of sluices, from the extremities of the common sewers into such barges, and be easily transported to distant places. And, as the system of canal navigation is now brought to so high a degree of perfection, the expense of carriage will be trifling indeed.

Dung-steads may be tended, and the respective manure augmented at different times, when no other business of greater moment stands in the way; and to prevent the heaps from being too much torn or spread about by the scratching of poultry, or by swine, they should be surrounded by pens, made of broad deals. In wet seasons it will be advisable to throw a slight shed over the dung-steads; and, as the heaps will not ferment so expeditiously as could be wished, it may be useful to turn them over once or twice in the course of the summer: thus they will become more thoroughly mixed and mellowed, and rendered sooner fit for use, while the seeds of weeds therein contained, will vegetate and be destroyed.

The following method of making dung-hills, as practised in Middlesex, we give from Mr. Middleton's interesting Agricultural Survey of that country; and, from its judicious arrangement, it has a just claim to the attention of agriculturists.—In the first place, all the scrapings of roads, mud of ditches and ponds, and the top mould of gravel-pits, are spread in the most convenient spots, as bottoms for dung-hills; on these layers is carted all the dung produced on the farm, together with the whole of what can be obtained from London, and the various inns on the road: to which materials are occasionally added chalk, ashes, soap-boilers' waste, bricklayers' rubbish, &c. In this state the mass or heap continues till within one month of the time for manuring land; the whole is then turned and thoroughly mixed together, the larger clods being broken into small pieces, and the drier parts being thrown in the middle. In consequence of this management, the mass becomes more intimately blended, and the putrefactive process is completely finished, while the matters remain in a heap. At the same time, by this method of forming the bases of dung hills, the fertilizing liquor which distils during the fermentation and heat that necessarily ensue, is effectually preserved, and greatly contributes to ameliorate the soil.

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* Complete Grazier. † Ibid.

(From the Easton Gazette.)

GREAT CROP.

The interesting letter annexed, is given to us, by our request, from a farmer who has never obtruded himself upon the public attention, and whose reputation, as such, has been confined to the limits of the neighbourhood in which he lives. It is time that such a man was more generally known, and his worthy example held up to the imitation of all,—for although Talbot can justly pride herself upon containing a body of admirable farmers, yet, unquestionably, all must concede the palm to William Hambleton of Emmerson's point—try him by the true criterions to test a farmer, and he will be found superior, as such, to any man, of any sort in Talbot county. His little farm at Emmerson's point, consisting of 115 acres, twenty-eight years ago would not produce as much corn on one third of it, as was necessary to support Mr. Hambleton's then very small family—since then, he has manured and improved it, supported a large family in greatest abundance and comfort, extended a most agreeable and liberal hospitality around to all, has placed upon his farm a valuable live stock, has put up good buildings, good fences, has every thing neat about him, has kept himself perfectly independent of all the world, and enjoys all the luxuries of the water and of the land under the smiles of heaven and the results of his own unrelaxing industry, care and good judgment.

Let those of our fellow citizens who want to go to the western country to live cheap and abundantly upon fresh rich land, go first and visit William Hambleton of Emmerson's point, and see what care and industry and a judicious course of life will bring a man to, in a few years, upon as poor a spot of earth as any on the globe—and then decide, whether it is better to remove all and toil in the wilderness, to live in cabins, a half hunter half farmer's life—or to stay here, and with less labour and less hazard and less exposure, resuscitate the worn out glebe that our forefathers tilled, upon the margins of our healthful and productive salt waters, keeping up and preserving the green sod and the weeping willow that mark the consecrated spot where they sleep, and under whose verdure and whose shade it becomes us to prepare to lie.

This is a serious decision that ought to be made by all who have the remotest thought of emigrating from this beautiful land of their fathers. It is to be feared, that, too frequently, the spirit of emigration is prompted by a spirit of idleness or restlessness, for we say it again and again, that frugality, industry, care, and judgment exercised here by a farmer, is as sure a means of delightful wealth, aye in those times, as can be had with equal frugality, industry, care and judgment any where, and with less toil and suffering. A better proof of which cannot be given than that offered us in the present establishment and independence of William Hambleton of Emmerson's point—to whose interesting letter we now call attention.

(For the Easton Gazette.)

Mr. Graham: *July* 18, 1830.

Sir,—Having seeded four different kinds of wheat last fall, on a field I had in fallow, I determined to ascertain the yield of each kind per acre, for this purpose I got a line seventy yards long, and stretched it in the furrow, I then crossed the lands, driving stakes down at each corner, until I returned to the beginning, I then directed a careful reaper to cut a narrow path from one stake to the other—after this I directed all my reapers to cut each acre of wheat down carefully and to shock up the produce of each acre upon the assigned limits of each.—The first acre, was the rare ripe or early wheat—this gave me six shocks, which yielded *thirty-seven bushels and a half,* weighing sixty-two and three quarters per bushels, which makes thirty-nine bushels and twelve lbs. The second acre is what is generally called the old Virginia white wheat—this was a little hurt by the rust; made eight shocks, which yielded thirty-three bushels, weighing sixty-two and one half lbs. per bushel, which makes thirty-four bushels and twenty-two and a half lbs. The third acre was the red chaff bearded white wheat, on which I made, fifteen shocks, which yielded *forty-one bushels,* weighing sixty-four and a quarter lbs. per bushel, which makes forty-three bushels fifty-four lbs. and a quarter. This wheat grew six feet high, and so thick, that as the reapers bound it up I found by actual measurement, that for every three and a half feet in length it made one large sheaf of wheat—the lands four feet six inches wide. The fourth acre was the old red bearded wheat, on which I made nine shocks, which yielded *forty-two bushels and three pecks,* weighing sixty-two lbs. per bushel, which makes forty-four bushels and nine lbs.

Capt. Daniel Fiddeman, William Goldsborough and Samuel Hambleton, Esqrs. saw the third and fourth acres trode out and measured.

The field on which this wheat grew contains sixty-five thousand corn hills, and including the turning rows makes about thirty acres; I think the field will average thirty-five bushels per acre.

This field was broken up the middle of June about four inches deep; turned in a considerable quantity of clover and weeds, rolled it immediately, and let it lay until the grass and weeds began to grow, then cross ploughed it, rolled and harrowed, seeded the first of November sixteen hundred to the bushel, and ploughed in very shoal.

This field was manured with marsh of a superior quality, the land having previously a plenty of lime on it—I also manured with sea grass, and compost of different kinds—part of this field was very stiff level land—this I manured with sand at the rate of two hundred and fifty cart loads to the acre, which had a considerable quantity of very small broken oyster shells in it, and here I had my best wheat—my corn land that I had in wheat is the same size of the fallow, on the two I seeded eighty-eight bushels, and I think I shall make at a moderate calculation sixteen hundred bushels.* William Hambleton.

Emmerson's Point, Bay Side, Md.

HORTICULTURE.

(From the Gardeners' Magazine.)

Outlines of Horticultural Chemistry:—Vegetable Physiology. By G. W. Johnson, Esq. of Great Totham, Essex.

The *flowers* and *seeds* are those essential parts of a plant by which it is preserved from extinction. Linnæus has compendiously designated the parts of fructification "a temporary part of vegetables, terminating the old individual and beginning the new;" a definition, however, only strictly true when applied to annuals.

The *petals* of the flower evidently act an important part in nourishing the more essential parts of fructification, since, if they are removed from plants naturally possessing them, I am not aware of a single instance in which the seeds will advance a grade further towards maturity. The *stamens* and *pistils* are the most essential parts. The first are the members that secrete the pollen, or fecundating dust, without the application of which to the pistils the seed is never fertile. It is the *anther,* or summit of each stamen, that secretes this fecundating matter. The pollen appears to be, to the unassisted vision merely, a fine powder; but, in fact, each grain is commonly a membranous bag, varying in form in different species. Pollen is chiefly discharged from the anthers during dry warm weather; but each vesicle of it remains entire until it comes in contact with moisture, when it immediately bursts, and discharges its minute particles in a form absorbable by the small ducts of the pistil. This necessary degree of moisture usually exists upon the summit of the pistils, to which the bags of pollen cling, and thus more securely determine the impregnation of the seeds. We are furnished, by a knowledge of these facts, with a reason for the great injury occasioned to orchards, &c. by excessive wet weather during the time of flowering. The pollen is washed away from the anthers as it is secreted, and, exploding at the instant, either does not settle at all upon the pistils, or alights upon them whilst loaded with unnatural moisture which is again shaken off, or is prevented entering their orifice. They warn us, also, from watering or disturbing unnecessarily the herbage of plants, under our care whilst they are in bloom. It is a fact of some importance to be known by the cultivators of hybrids and new varieties, that in dry weather pollen may be conveyed to a considerable distance uninjured. This is demonstrated by many observations on accidental impregnations by the agency of winds, &c.; and still more decidedly by Linnæus, who kept some of the pollen of the Játropha ùrens in paper for more than a month, which afterwards fertilized the pistils to which it was applied. In the present general diffusion of botanical knowledge, it seems almost trite to observe that the seed grower should neither exterminate the barren plants of the diœcious class, as in spinach, asparagus, &c., nor remove the unfertile flowers of cucumbers, &c.; for, without these, the female blossoms would be equally unproductive. Many insects are highly injurious in the hot-house, &c., to the plants they contain; but an indiscriminate destruction is not to be recommended. Many of them bear pollen on their wings, &c., to female flowers, which otherwise would remain unimpregnated. The humblebee, above all other insects, I would have befriended, for its robust and hardy form enables it to get abroad and be employed in this useful work, when weaker insects are confined by inclement weather.

The stamens are changed into petals in double flowers, which are consequently unfertile: they are often likewise obliterated, either by excessive nourishment, or when the plant increases much by root, as in Fiery Lily (*Lílium bulbíferum.*) If this excessive production of root is very remarkable, it sometimes prevents the production of the flowers of the plant entirely, as is the case with some early varieties of the potato; for Mr. Knight demonstrated that if the tubers of such were removed as they were produced, the plants blossomed as freely as later tubering varieties; and, *vice versâ,* the removal of the blossoms of tuberous-rooted plants promotes the size and number of the tubers. It is not to be supposed, however, that fibrous rooted plants are not similarly affected. I have observed the gooseberry bush, that, after being under the shade of trees, &c., had never borne fruit during a series of years, to throw out annually a very excessive number of suckers. Again, fibrous-rooted land plants, which by accident are growing in water, increase the number of their radiculæ enormously, whilst their fructification is diminished and abortive in proportion.

Of the pistils, the two essential parts are the *stigma,* or orifice for the admission of the pollen, generally on the summit; and the *germen* which is the rudiment of the future seed-vessel. Pistils, like stamens, are obliterated in double flowers, otherwise they are not so liable to become petals.

The production of the *seed* is "the being's end and aim" of every plant: all its other parts, by ministering in some way or other to its maturity, indicate its importance. Not perceiving that a description of the various parts of the seed would lead to any practical hints to the gardener, I shall proceed to the consideration of the phenomena of *germination.*

When a seed is placed in a situation favourable for vegetation, it soon swells, its skin, or *testa,* bursts, and a shoot, denominated the *radicle,* is protruded; and, in a short time, this is followed by a second, which is named the *plumula.* The radicle by degrees sinks into the earth, and becomes a perfect root; whilst the plumula rises above the surface, to expand, and complete the form of the perfect plant. The essentials for germination are several. The first of these appears to be the perfect maturity of the seed; for, although Sennebier found that peas will sometimes vegetate, though sown in a green and soft state, yet it is certain that the plants raised from immature seed are always weak in their growth, and unproductive. Some seeds require to be sown immediately after they ripen. The coffee bean, and the seeds of angelica and fraxinella, refuse to germinate if not sown within five or six weeks after they have been gathered; but by far the majority of seeds retain their powers of vegetating, if carefully preserved, for years. Home sowed barley, which vegetated after being gathered 140 years. Farinaceous seeds, that is, such as contain a large proportion of starch, usually are those which retain their vitality the longest (barley, wheat, and oats, are of this number,) inasmuch as that constituent is very slow in decomposing. Oily seeds, and those enclosed in juicy berries, or other seed-vessels of a mucilaginous or saccharine quality, are the most liable to spoil. It is to be observed that, for the gardener, old seed is sometimes desirable; the plants from it run less luxuriantly in foliage, and produce their blossom and fruit more early than those from new seeds: hence, for melons, early and late crops of peas, &c., seed that is a year or two old is to be preferred.

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* *Note by the Editor.*—Mr. Hambleton has in his neighborhood many judicious farmers, who have long remarked his crops, and many of them think his crop will be much nearer eighteen hundred bushels than sixteen—and some say, they would not be surprised that his present crop should yield him two thousand bushels.

No seed will germinate without oxygen gas, moisture, and a certain degree of heat are present. The requisite proportions of these vary in different individuals; but, in the total absence of any one, no seed will advance a single grade in vegetation. When all are present to a seed, carbonic acid gas is evolved, and oxygen absorbed. This gas is afforded to the seed from the atmosphere, in which we shall see hereafter it exists in the proportion of about 21 per cent. From the experiments of Saussure we learn that, weight for weight, wheat and barley, during germination, absorb less oxygen than peas; whilst these consume less than beans and kidneybeans. The first two may, therefore, be buried at a greater depth below the surface of the earth than the last three, without vegetation being prevented; for it is a want of a due supply of oxygen, at great depths from the surface, that prevents the germination of seeds so buried. Seeds that are thus situated, however, will often retain their vegetative power for an apparently unlimited period: hence, earth, taken from a considerable depth, will often, when brought to the surface, be covered with thistles, charlock, &c. In botanic gardens, plants, that were supposed to be lost to the establishments, have often been recovered by the casual digging over the borders where they had been grown; some of their seed having been buried in by a previous turning over of the soil. Seeds abounding in oil have been observed to retain their vitality the longest when so buried.

Oxygen gas is so essential to germination, that any application to seeds that affords it to them in abundance greatly accelerates the process: hence, M. Humboldt found that chlorine, which yields abundance of that gas when in contact with water, by combining with its hydrogen and setting the oxygen at liberty, produced this acceleration of vegetation. At Vienna several seeds, which were of considerable age, and had constantly refused to germinate, did so readily when treated with it. Plants raised from such seeds are undoubtedly more weak than others raised from seed in which no such extra-stimulus is required. Mr. George Sinclair, author of the excellent *Hortus Gramineus Woburnensis*, however, informs me that he has employed chlorine with singular success. He obtains it by mixing a table spoonful of muriatic acid with a similar quantity of black oxide of maganese, and half a pint of water. After allowing the mixture to remain two or three hours, the seed is to be immersed in the liquor for a similar period, and then sown. Another, and, I consider, the most eligible mode of applying the chlorine, was also suggested to me by the same distinguished horticulturist. In this way, he says, he has made tropical seeds vegetate, which refused to germinate by other modes of treatment. He placed the mixed ingredients mentioned above in a glass retort, inserting its bulb in the hot-bed, and bringing its beak under the pot in which the seeds were sown, connecting it with the draining aperture of the pot. The chlorine gas is gradually evolved, passing through the earth of the pot to the seeds, accordingly as the heat required for the different species induces.

Aghard and others have proved that seed will not germinate in any gas without a mixture of oxygen.

(From Prince's Treatise on the Vine.)

NOMENCLATURE OF GRAPES.

LOUISIANA.—PR. CAT. NO. 387.

This title has been adopted for a vine received from the interior of the state whose name it bears. It has not yet produced fruit here, and details on that head cannot therefore be given at present.

GRISWOLD'S SEEDLING.

This vine was reared from the seed of a foreign variety by John Griswold, Esq. of Columbia county, in this state; the berries are blue, and the vine produces abundantly.

SCOTT'S GRAPE.

This fine variety was presented to me by George W. Jeffreys, Esq. of North Carolina, at the particular request of the discoverer, Gen. John Scott of the same state. In a letter received from the latter, he remarks—"the original vine grows in the woods, on the bank of a small stream; it is old and large, and runs to such a height upon a tree, that none of its branches can be lowered so as to form layers for planting. No other vine of the same variety has yet been discovered. Its fruit ripens about the first of October, the berries are round and about the middle size, skin thin, flesh juicy and delicate, and the flavour very fine. It belongs to the class of white grapes, is of an amber colour when ripe, and when used for tarts does not colour the pastry. As yet I have not been able to succeed with the cuttings, and apprehend that like our far-famed Scuppernong, and many others of our native varieties, it cannot readily be propagated in that way." I have reared about twenty fine seedlings from the above named vine, which have grown vigorously, and being now in the second year's growth, will no doubt produce fruit the ensuing season.

BAILIE GRAPE.

This title I have adopted for a fine native variety, received from Samuel Bailie, Esq. of Virginia, a friend and correspondent, to whose philanthropy and liberal sentiments I cannot render justice in any common terms. The present is one of thirteen varieties he has transmitted to me, all of which were collected in their natural localities, and whose relative merits will form an object of future investigation.

Mr. B. describes the fruit to which I have given his cognomen to be of medium size, of a red colour, and free from pulp, and considers that it will be a fine grape when brought into regular culture, to which it has never been submitted until the present year.

CLARKE'S GRAPE.

This variety was also received from Virginia, and is called after the proprietor of the plantation on which it was discovered. The original vine is very large and old, and extremely productive, the bunches and berries are of good size, the grapes ripen well, and are in perfection in August, and hang a long time on the vine. They are exceedingly sound and firm, sweet and well tasted, and the person who owns the vine, states that his mother used to have the grapes gathered in the fall and put up in a barrel, (a layer of straw and a layer of fruit,) and that they were preserved in this manner during the winter as plump and sound as when first packed away.

SMALLWOOD.

This fine native vine I received from E. Smallwood, Esq. of North Carolina, who exercises much discrimination in regard to the qualities of valuable fruits. He esteems it the most desirable variety for making wine, although he has also the white and black Scuppernong. The fruit he remarks is about half the size of the Muscatel grape.

POND'S SEEDLING.

This is a variety raised from a seed of the black fox grape, by Mr. Samuel Pond, of Massachusetts. Mr. P. states in a letter to me, that the bunches are long and of good size, the berries round, purple, and juicy, with a thin skin. He considers it one of the best native varieties, and states, that its growth is remarkably vigorous, with proportionably short joints. One shoot of the past season measured twenty-seven feet, and on another of the same age he counted fifty-seven joints.

GALE GRAPE.

This vine I received from Samuel Downer, Esq. of Boston, who obtained it from Troy, in this state, and informs me that it was raised from a seed of a Smyrna raisin, by Miss Gale of the latter city. Mr. D. who has seen the fruit, represents the vine to be very vigorous and prolific, the clusters of uniform appearance, handsomely shaped without shoulders, and rounded at the top and base; the berries not quite as large as those of the Meunier or Miller grape, but of beautiful appearance, devoid of pulp, replete with pleasant juice, and set with great compactness on the bunches. Having myself examined the foliage particularly, I find it to bear so strong a similarity to the Meunier, that it is evidently of that family: the fruit I have not seen, but Miss Gale informs me that it very much resembles the Black cluster.

NASHUA.

A correspondent in Pennsylvania writes me, that he has two varieties of grapes received from the state of Maine, which are reported to be very fine, one of which is called by the above title; neither has yet fruited with him, and he is unable to give descriptions of them at this time. I make them here a subject of record to elicit future investigation.

WINDSOR.

This vine I received from our highly intelligent and spirited fellow citizen, John C. S. Monkur, Esq. corresponding secretary of the Maryland Society for the promotion of the vine culture. He states that it was found growing wild twelve miles north of Baltimore, at Windsor, the plantation of George Fitzhugh, Esq. It is very luxuriant, a great bearer, and has every appearance of our common chicken grape, but very far exceeds it in the deliciousness of its fruit. The clusters are large and long, the berries round, of a blue colour, in size larger than the ordinary wild grape, and replete with a grateful juice, resembling in taste the Meunier or Fromenté. It ripens there the last week in August, and makes an excellent wine.

(From the British Farmers' Magazine.)

BEET-ROOT SUGAR.

Much importance is at present attached in France to the manufacture of beet-root sugar. The expensive process for the manufacture of beet-root sugar has till now been the cause which has kept up its price on a par with the sugar of West India growth; and to diminish this, so far as finally to make the former more marketable, so that France may one day dispense with the foreign supply of an article of so paramount a necessity in that country, seems to engross the attention of land-owners, growers, refiners, and chemists. We find in a number of the *Journal de Commerce*, an account of two experiments recently tried with this view, which have been attended with much success; and, as the particulars are rather curious, we give the substance of them. Both experiments were made at the laboratory of Mr. Charles Derosne, at Chaillot, near Paris, and in the presence of a great number of eminent chemists. The first tended to show the power of a newly-invented system of defecation, during which Mr. Derosne successively defecated two doses of beet-root juice of 600 litres each, through the agency of alum, the properties of which preclude the inconveniencies attending the use of lime, and have produced a much more complete discolouration than was obtained by all former systems. The juice defecated was so limpid and pure, that on being boiled it appeared like water, perfectly free of froth. Reduced to a thicker body, it formed itself into a syrup of the most perfect beauty, which, after the evaporation, and without the help of the stove, yielded a sugar of the finest colour.

The second experiment was meant to evince the power of evaporation in twelve hours, by a new method. By the means of 209 killogrammes of pit-coal, there were evaporated in the boilers exposed to the direct action of the fire, 1,347 litres of water in ten hours. The steam thereby produced, heated in one hour and two minutes, 600 litres of beet-root juice, of which it operated the defecation; it heated besides, in another hour, the liquid which was circulated in the boilers intended to rest on the fire. In taking, for the employment of these two hours, the lesser quantity of evaporation obtained during the ten first,—that is, 128 litres of water,—the total result of the experiment is, 2,115 litres of water, or for every killogramme of coals, a direct evaporation of 60 kil. 44., and an indirect one of 3 kil. 67.; in all, 10 kil. 11.,—a result which no system of evaporation has been hitherto known to attain.

RURAL ECONOMY.

(From the Library of Useful Knowledge.)

THE STRANGLES IN HORSES.

This is a disease principally incident to young horses—usually appearing between the fourth and fifth year, and oftener in the spring than in any other part of the year. It is preceded by cough, and can at first be scarcely distinguished from common cough, except that there is more discharge from the nostril, of a yellowish colour, mixed with matter, but generally without smell; and likewise a considerable discharge of ropy fluid from the mouth, and greater swelling than usual under the throat. This swelling increases with uncertain rapidity, accompanied by some fever, and disinclination to eat, partly arising from the fever, but more from the pain the animal feels in the act of chewing. There is considerable thirst; but after a gulp or two, the horse ceases to drink, yet is evidently desirous of more. In the attempt to swallow, and sometimes when not drinking, a convulsive cough comes on, which almost threatens to suffocate the animal, and thence probably the name of the disease. The tumour is about the centre of the channel under the jaw, it soon fills the whole of the space, and is evidently one uniform body, and may thus be distinguished from glanders, or the enlarged glands of catarrh. At length the centre of it becomes more prominent and softer, and it evidently contains a fluid. This rapidly increases, the tumour bursts, and a great quantity of pus is discharged. As soon as the tumour has broken, the cough subsides, and the horse speedily mends, although some degree of weakness may hang about him for a considerable time.

Of the cause of the disease we can say but little. Few horses, possibly none, escape its attack; but, that attack having passed over, the animal is free from it for the remainder of his life. Catarrh may precede, or may predispose to the attack, and undoubtedly the state of the atmosphere has much to do with it, for both its prevalence and its severity are connected with certain seasons of the year and changes of the weather. There is no preventive for the disease, nor do we believe that there is any thing contagious in it. There are strange stories told with regard to this; but the explanation of the matter is, that when several horses in the same farm or in the same neighbourhood have had strangles at the same time, they have been exposed to the same powerful but unknown exciting cause.

The treatment of strangles is very simple. As the essence of the disease consists in the formation and suppuration of the tumour under the jaw, the principal, or almost the sole attention of the practitioner should be directed to the hastening of these processes: therefore, as soon as the tumour of strangles evidently appears, the part should be actively blistered. Old practitioners used to recommend poultices; which, from the thickness of the horse's skin, must have very little effect, even if they could be confined on the part; and from the difficulty and almost impossibility of this, and their getting cold and hard, they must weaken the energies of nature, and delay the ripening of the tumour. Fomentations are little more effectual. A blister will not only secure the completion of the process, but hasten it by many days, and save the patient much pain and exhaustion; and it will produce another good effect—it will, previous to the opening of the tumour, abate the internal inflammation and soreness of the throat, and thus lessen the cough and wheezing.

As soon as the swelling is soft on the top, and evidently contains matter, it should be deeply and freely lanced. It is a bad, although frequent practice, to suffer the tumour to burst naturally, by which a ragged ulcer is formed, very slow to heal, and difficult of treatment. If the incision is deep and large enough, no second collection of matter will be formed: and that which is already formed may be suffered to run out slowly, all pressure with the fingers being avoided. The part should be kept clean, and a little friar's balsam daily injected into the wound.

The remainder of the treatment will depend on the symptoms. If there is much fever, and evident affection of the chest, and which should carefully be distinguished from the oppression and choaking occasioned by the pressure of the tumour, it will be proper to bleed. In the majority of cases, however, bleeding will not only be unnecessary, but injurious. It will delay the suppuration of the tumour, and increase the subsequent debility. A few cooling medicines, as nitre, emetic tartar, and perhaps digitalis, may be given, as the case requires. The appetite, or rather the ability to eat, will return with the opening of the abscess. Bran-mashes, or fresh cut grass or tares, should be liberally supplied, which will not only afford sufficient nourishment to recruit the strength of the animal, but keep the bowels gently open. If the weakness be not great, no further medicine will be wanted, except a dose of mild physic, to prevent the swellings or eruptions which sometimes succeed to strangles. In cases of debility, a small quantity of tonic medicine, as camomile, and gentian with ginger, in doses of a couple of drachms, may be administered.

As strangles seem to be a disease from which few horses escape, and which, although attended with little danger, is sometimes tedious in its progress, and accompanied by much debility, some foreign veterinary surgeons have endeavoured to produce a milder disorder by inoculating, either with the matter from the tumour, or the discharge from the nose; and it is said that a disease, with all the characters of strangles, but shorter and milder in its course, has supervened. English practitioners have not, we believe, tried the experiment.

To Remove a Tight Stopper from a Decanter.

It frequently happens that the stopper of a glass bottle or decanter becomes fixed in its place so firmly that the exertion of force sufficient to withdraw it would endanger the vessel. In this case, if a cloth wetted with hot water be applied to the neck of the bottle, the glass will expand, and the neck will be enlarged, so as to allow the stopper to be easily withdrawn.—*Cabinet Cyclopædia.*

LADIES' DEPARTMENT.

FEMALE STRATAGEM.

Of all stratagems resorted to by female ingenuity to obtain a suitable husband, we know of none so extraordinary as that of the French lady: who gave out that her head resembled a "death's head."—Among the numerous lovers, who, in consequence of the immense wealth she was reputed to possess, aspired to the honor of her hand, in spite of the terrors of her face, there was reckoned no less than 519 reformed rakes, and 200 ruined gamesters. She shewed to a person who was in her confidence, twenty-five or thirty letters which she had received from Belgium, written by certain well known characters, who said that they would never revolt, though she should prove to be the most hideous object in the world. They were disposed to flatter, caress, and wed the plague itself, so they could procure abundance of gold. All the letters she left unanswered: but to a few she was generous enough to order her secretary to return thanks. Her friends were permitted to take a copy of the following:—

"*Madam*—Report has doubtless painted you less handsome than you are; but none, at least, will refuse to admit that your physiognomy is expressive. I should have had the honor of presenting myself before you, and declaring my passion, had not pitiless creditors detained me in the Conciergerie. I must beg you will have the goodness to pay me a visit, to receive the proposition I am so anxious to make. Though you may have shown a little of the coquette, in order to set yourself off to the best advantage, that is not the fault of nature; consequently it can make no kind of difference in my intentions. No aspect can be more hideous in the eyes of a prisoner, than his prison. Bring me liberty, and you will appear charming indeed. If you should favour me with a visit, you will see a young man twenty-five years of age, who has, among other advantages, a tolerable person, with a mind proper to meet worldly success. He has moreover the honor to declare his ardent vows.

Folleville.

"P. S.—Be so good as to request the jailor of the Conciergerie to lend his parlour for the interview."

The mind of the young lady did not tend to a union, in consequence of the above invitation; yet her heart was not insensible. In the brilliant circle in which she moved, covered constantly with a mask, she distinguished a young man of noble and interesting countenance, whose mind had been well cultivated. He had a fortune which placed him above interested views. The young man, on his part, was so much charmed with the graces and delicate sentiments the young lady with invisible features displayed in her conversation, that he at length declared all his happiness depended on a union. She did not deny the impression he had made on her heart, nor conceal the pleasure she would feel in acceding to his proposal,—but expressed to him, at the same time, the dread that he would repent on beholding her face, which she described to be that of death in its most terrific form. She begged him to beware of rashness, and consider well, whether he could bear the disappointment he might incur.

"Well, well," said the young man, "accept my hand, and never unmask but to the eye of your husband." "I consent," replied she; "I shall not survive the appearance of affright and disgust, and perhaps contempt, you may feel after marriage." "I will not shrink from the proof; it is your heart, and not your figure, that I love." "In eight days," said the lady, "you shall be satisfied." They prepared for the marriage, and, notwithstanding the refusal of the generous young man to accept a million in bank bills, she settled all her property on him. "If you have not courage enough to suffer," said she, "for your companion, I shall at least be consoled by the reflection, that I have enriched him whom I love, and he will perhaps drop a tear to my memory." Returning from the altar, she threw herself on her knees before her spouse and placed her hand on her mask. What a situation for the husband! His heart palpitated, his face turned pale, the mask fell and he beheld an angel of beauty! She then exclaimed affectionately, you have not deserved deformity—you merit the love of beauty! The happy couple left Paris the next day for Livonia, where the great property of the lady was situated.

CAUTION TO TIPPLING HUSBANDS.

We have been informed, that during the severe frost which took place about two months ago, a lively lass, who married about a year and a half before to a young farmer, on the borders of Romney Marsh, was much scandalized at her husband's going too often to the public house, and staying there too late when he was there. Several little conjugal expostulations having failed of producing an alteration, the lady, in a moment of passion, declared positively that if it occurred again she would throw the baby (an infant four months old, of which he was very fond) into the military canal, and herself in after it. Not dreaming that she would carry her threat into execution, a few days only had elapsed, when the

"Iron tongue of midnight had told twelve,"

before Mr. —— knocked at his own door. His wife let him in herself, and without saying a syllable, set down the candle, walked deliberately to the cradle, snatched up the unconscious little innocent sleeping within it, and rushed out of the house. It is hardly necessary to say that the alarmed husband ran hastily after, but so sudden and unexpected had been her movement, that she had gained a considerable start, and the canal being but a few yards from their dwelling, reached the towing path before he could overtake her. He was just in time to seize and save her from self-destruction; but the poor little thing was already in the middle of the water, at that spot about four feet deep, and he could witness its struggle by the light of the moon. In an instant he threw himself in, and grasping the night gown which had prevented the wearer from sinking, brought safely to the bank—*the cat!*—dressed in little Polly's bed clothes, exceedingly wet, and now mewing piteously. His spouse, in the mean time, had regained her own door, which was not opened till he had plenty of time to enjoy all the comforts of his situation. Before, however, he was quite an icicle, admission was vouchsafed; but the story of his self-inflicted ducking got wind, no further stratagem was necessary to wean the swain from his *symposium*, the jokes of his convival acquaintance being sufficient to prevent his again partaking their revels; the impudent little pot-boy himself cries *mew!* whenever he sees him.—*London paper.*

MISCELLANEOUS.

(From the Journal of the Franklin Institute.)

EXPLOSION OF STEAM BOILERS.

Circular of the committee appointed at a meeting of the Board of Managers of the Franklin Institute, to inquire into the causes and the means of preventing explosion of steam boilers.

Philadelphia, June 1830.

Sir.—"The Franklin Institute of the state of Pennsylvania, for the promotion of the Mechanic Arts," have had their attention lately called to the subject of the Explosion of Steam Boilers, by the lamentable number of accidents that have occurred in steamboats during the present season; and by the painful circumstances which have in many cases attended these accidents. They have long had the subject before them, and are impressed with the hope, that those explosions were produced rather by imperfection in the construction, arrangement, or management of the machinery, than by any inherent and irremediable source of danger in the invention itself. Feeling a high interest in the promotion of the success of the mechanic arts, and especially of that of steam navigation, which with pride they consider as peculiarly the offspring of American ingenuity and perseverance, they have appointed the undersigned a committee for the purpose of inquiring:—

1st. What are the probable causes of the explosions of boilers on board of steamboats?

2nd. If any, what are the best means to obviate the recurrence of these evils, or to diminish the extent of their injurious influence, if they cannot be wholly guarded against?

3d. By what means can those remedies be applied and enforced?

We are aware, that no investigation of so difficult and extensive a subject, can be productive of good, unless it occasion a concentration upon one point, of all the information that results from the use of steamboats over so vast a country as ours, during a period of upwards of twenty years. With this view, we beg leave to call your attention specially to it, and to request that you may be pleased to communicate to us the result of your observation, experience or reflection, on these interesting questions. We shall feel thankful to you, particularly for an account of any explosion, which may have occurred in your vicinity, or under your observation, or of which you may have obtained correct information. By collecting the *facts* in a number of explosions, we may be able to arrive at some satisfactory conclusions, as to the causes which produced them. We are aware, that these may have been different, in different cases, and we are by no means prepared to assume as certain, that a simple and efficacious remedy will be devised, but we hope it may be found; and without any undue interference with the right of individuals, or with the freedom of commerce and industry.

We had at first, proposed to draw up a series of questions for publication and circulation, but upon mature deliberation prefer to leave the subject open, assuring you, that any information or suggestion will be thankfully received, and duly acknowledged in the report which we shall make of the result of our investigation. We beg leave, however, to suggest a few general heads, which may direct your attention to those points upon which we are chiefly anxious to obtain information, viz:

The Boiler.—Its size, form and relative thickness, the material from which it is made, (of copper or iron, &c.) if of iron, whether of foreign or American iron, especially in the boilers that exploded.

Safety Valve.—Its form, size, load in proportion to the thickness of the boiler, liability to get out of order, facility of repair, number used, location of the valve.

Supply of Water.—Mode of insuring a sufficiency, how gauged?

Arrangement of the Boilers in the Boat; which is the least liable to accident?

Construction of the Boat—to avoid the accidents in the boilers.

In addition to these, we will add, it is our wish that the investigation should take the widest range, and we beg that you will give the same scope to your answer.

Please direct your reply, to *Mr. William Hamilton*, Actuary of the Franklin Institute.

W. H. Keating,
Samuel V Merrick,
Isaiah Lukens,
James Ronaldson,
Rob't M. Patterson, M. D.
Benjamin Reeves,
Thomas P. Jones, M. D.
M. W. Baldwin,
George Merrick.
Robert Hare, M. D.
Alexander Dallas Bache,
James I. Rush,
Frederick Graff,
J. K. Mitchell, M. D.
George Fox,
Walter R. Johnson,
James P. Espy,

(From the Columbian (Penn.) Spy.)

ERGOT.

Mr. Editor,—Every natural occurrence, whether usual or rare, whether important or trifling, equally demands the attentive consideration of the naturalist. It is a reflection, no less degrading to us than true in itself, that many of the daily phenomena remain yet to be explained, and that what are most familiar to our senses, have not been exposed to the investigation of our minds. Probably, the disposition of our mental faculty is such that it is inclined to search into the nature of curiosities while it neglects the objects frequently exhibited to it, and darts over domestic and rich fields of science to cultivate a foreign and less productive soil. This, in my opinion, is a strong propensity of the mind, and evinces itself as conspicuously in the common laborer, as in the philosopher; for every strange occurrence excites in all the "why and wherefore." It is a misfortune to science that every man is not possessed with a philosophic and logical mind, and thence able to explain all circumstances coming within the range of his sensitive organs. Were such the state of society the true and only permanent philosophy would rapidly advance, for it would then be less in the hands of those fanciful men, who *manufacture* facts to suit opinions rather than draw conclusions from existing things—thus making their reasoning hypothetical when it should be inductive.

These reflections, used here as introductory, arose after reading your statement respecting "Ergot in wheat;" and as the occurrence is one which has escaped ordinary observation, I determined to examine into the cause and habitance of Ergot. Ergot is a name which is commonly understood to designate an excrescence of a dark brownish color externally, and whitish within, projecting from among the calyces on the spike of the rye plant, (*Secale Cereale.*) Its botanical name is *Secale Cornutum*, though it has many synonyma—as *Secale Corniculatum, Clavus Secalinus; Mutterkom Hornzapfew* of the Germans; *Seigle Ergote*, of the French; and in England, *the Spur, Hornseed*, and *Spurred or Horned Rye*. The *Secale Cornutum* will be found growing most abundantly upon the isolated stalks of rye which come up in wheat fields, in the spontaneous growths occurring in clover patches, and along the gramineous margin of rye fields. It is often perceptible at a great distance projecting out like a cock's spur—though sometimes it is so diminutive and invested so closely by the glume that it requires a careful eye to detect it: in the former case there will seldom be found more than from one to a half dozen in each head, but in the latter the head through its whole extent will frequently be filled.

It is my intention of extending this communication into an essay, and therefore I will ask and endeavor to answer the query—*what is Ergot?* In the opinion of some it is considered as a distinct plant occupying the glumes of the rye as a parasite, and belonging to the Crytogamous class, of the genus sclerotium, and natural order fungi. Others believe it to be a morbid growth of the grain; and this accords with my own opinion. I have paid particular attention to it during this season, and from the following circumstances I am induced to support such an opinion, viz:—1st. It is no parasitic fungus or distinct plant, because it assumes the general configuration of the ordinary healthy grain. 2d. Because it is embraced by the same glume or calyx. 3d. It never occurs that a grain of rye and a grain of ergot grow together from the same enclosure. 4th. Upon the apex of every grain of ergot the shrivelled remains of the rye, possessing a whitish appearance, can be observed connected like an epiphysis. And 5th. Because it sometimes happens that a grain will be found only half *ergotized*—the upper half having the characteristics of a sickly grain of rye, while the inferior portion possesses all the properties of genuine ergot. What, therefore, I consider as the correct answer to the above question is, that ergot is a diseased grain of rye, produced by an insectile cause, exclusive of any morbid action in any other part of the plant.

Until I had read in your paper of "ergot in wheat," I was not aware that such a thing existed, and it was the curiosity of the statement that stimulated me to investigate the subject more minutely. According to the idiom of medical language, the word ergot is only applicable to the Secale Cornutum or spurred *rye*, but in a physiological and pathological sense it is consistently applied to all species of vegetables wherein the same process of causation obtains, and therefore your expression of "ergot in *wheat*," though it be an innovation, is notwithstanding consistent with correct views. Since your paper of the 1st inst. I have repeatedly inquired after the same fact, and met with only one person who had any knowledge of such a circumstance. This was a farmer living on Little Chicques, who informed me he had often seen ergot in wheat, particularly in the white wheat, but that the grains were much smaller than those in rye. While riding along I had been looking in every wheat field in vain to discover it, until I alighted one day to pick some ergot from rye in a wheat field, when I accidently discovered ergot in the wheat. Put upon the "*qui vive*" by this discovery, I soon collected upwards of 50 heads of wheat containing ergot—most of them but one grain, and some two and three grains. The ergot of the wheat is much shorter, thicker, and more clumsy than that of rye, though both are of the same color internally and externally. There is no doubt that ergot has been in wheat as long as in rye—but that it escaped being generally observed in consequence of being more secluded, for it requires a sharp eye to detect it. It would be an interesting experiment, and worth the trial, to ascertain whether it produces the same effect upon the female system as is occasioned by the ergot of the rye. I am of the opinion that similar effects would be produced, and it is my intention to satisfy myself on this point.

In searching after the etiology of Ergot it is first necessary to comprehend the economy of vegetation. The vegetable, like the animal world, possesses an organic sensibility, on which its existence and its peculiarities depend. The sap or vegetative blood circulates through all parts of a plant, and is distributed as pabulum to every point, and the organic sensibility of every point accumulates nutrition from the sap. Though the sap is unique in all parts of a plant, yet the modelling action of the peculiar organic sensibility converts it into a substance similar to that in which it circulates, and the different parts of plants—such as the epidermis, phyteumacole, cortex, liber, lignum, and medulla, are all formed from a single fluid by the respective sensibilities of these parts. This, it appears to me, so far as it goes, is the true physiology of vegetation—but if, in any part of a plant, there is any agent, which interrupts or counteracts the regular operations of nature, the action as well as the structure of that part will become modified. I will now apply this knowledge to the explanation of the production of the Ergot. A stalk of rye has this organic sensibility in all its parts. Now when the sensibility of any part or organ of this plant is acted upon by any agent other than its customary stimulus, it becomes perverted, and its operations consequently differ. Thus in the formation of Ergot, the young grain, as I believe, is punctured by a certain insect—this checks the natural progress of its functions, poisons the seed while growing, and converts it into a different substance. Notwithstanding the same juices may supply the grain, yet the organ which operates upon them being altered, they will be applied to different purposes, and though in a natural and uninjured state of the grain they would have formed rye, yet under these circumstances they serve for the manufacture of Ergot. The opinion that an insect punctures the grain and deposits its eggs in the production of Ergot is corroborated by the fact, that wherever there is a grain of Ergot one or more *larvæ* of a certain insect may be seen at the base of it, of a bright orange color, having a black microscopic point at one end, and being of a darker shade through the opposite third of its body. They may often be discovered over other parts of the Ergot, particularly in any cracks, and in a spongy place between the black and whitish end. I have also seen an extremely minute insect, scarcely discoverable without the microscope, of a transparent gum arabic cast, and racing actively over the grain. In order to strengthen our views on this point, I will state a fact within my recollection. Dr. Wm. P. C. Barton had a box of Ergot secluded in the University of Pennsylvania, and after some time he found the inner surface of the glass-lid covered with spots resembling the excrement of an insect. Examining the inside of the box he found that the whole mass of contents were agglutinated, and that every single grain of Ergot gave out a phalæna—a moth, or insect resembling the Hessian fly. Now the box was perfectly air tight, so that no insect could insinuate itself into it. They must, therefore, have been previously connected with the Ergot, and its agglutination must have been occasioned by some entomological cause—as the interlocation of larvæ, or the deposition of insects in the rye under certain states of the weather. This, I consider, is sufficient evidence to prove that Ergot is formed from and out of a grain of rye, owing to the puncture of an insect causing a diversion of the juices and a morbid action of the part.

What I have written respecting the cause of Ergot in rye, and the circumstances attendant on its growth, may also be applied to Ergot in wheat. Indeed, were I not satisfied already of the fact, I should have supposed, from analogy, that Ergot also occurred in wheat. It would be a matter of no surprise to me should I discover it in all the varieties of the *Cerealiæ* bearing the same general characters and properties of the secale cornutum. I will even extend my belief further—it appears to me possible that Ergot may occur in almost any vegetable. The *gall-nut* may be considered as nothing more nor less than the *Ergot* of the *Quercus Cerris*, produced by a deposition of the eggs of the *Cynips quercus folii* in the foliage and other tender parts of the tree. Around this puncture an excrescence is formed by the diverted juices, in the same way as the excrescential disease of the rye, within which incubation of the egg occurs, and the larva passing through all the stages of its metamorphosis becomes a perfect insect, and, as took place in Dr. Barton's box of Ergot, finally eats its way out. The *Quercus Alba*, or white oak, also has its peculiar Ergot, and the noted *cedar apple*, which has been considered as the fruit of the cedar tree, is also nothing more than an Ergot. Such facts as these are calculated to do away the opinion that Ergot is a "parasitic fungus," or an actual plant produced by seeds germinating in the rye, and serve to substantiate the views which I have advanced. As all the Ergots, which have been subjected to experiment, have proved to be active and medicinal agents, it would be an interesting inquiry to ascertain whether all kinds of Ergot do not possess active and medicinal properties. This subject seems inexhaustible, but as I have already written more than I had at first intended, I will conclude by asking the attention of scientific men to all the varieties of Ergot.

Mount Joy, July 10th, 1830 Medicus.

Mr. Editor,—Since having read the production of *Medicus* in your paper of the 15th, on the subject of Ergot, I have been led to suppose that it may be injurious to turn most kinds of farm stock to pasture, in clover fields which have much "volunteer rye" in them; as such we are informed, produce the most Ergot, and may by their medicinal properties occasion abortion among several kinds of stock, as horses, cattle, sheep, and swine, oftener than farmers are aware of. When suffered to graze in such fields, they cannot avoid eating large quantities of it, as they all suck the heads of rye in such fields as soon as the grain in them gets properly formed. The above hint is offered in the hope of eliciting information from professional men, and those of practical experience. Yours, &c. Bix.

July 20th, 1830. [*Ib.*

THE GREAT ECLIPSE OF 1831.

This eclipse which will happen on the 12th of February, will be one of the most remarkable that will again be witnessed in the United States for a long course of years. The apparent diameter of the sun will be 32½ minutes of a degree, that of the moon 31½. Of course the eclipse will be annular; that is in all places where the sun will be centrally eclipsed, at the moment of the greatest obscuration, it will exhibit the appearance of a beautiful luminous ring round the moon. Eclipses of this kind are of less frequent occurrence than those which are total. The centre of the eclipse will first touch the earth's disk in the great Pacific Ocean on the morning of February 12th, in latitude 13 deg. 55 minutes N. and longitude 140 deg. 3 minutes west from Greenwich. At this point the sun will rise centrally eclipsed at 34 minutes past 6 o'clock; or at 3 hours 54 minutes P. M. apparent time at Greenwich. Thence proceeding by a gentle curve to the South and East, in 16 minutes it will enter upon the coast of California, in lat. 27 degrees 30 minutes N. Thence curving northwardly, 47 minutes more it will enter the United States near the S. W. corner of Louisiana, and in 6 minutes will cross the Mississippi, near St. Francisville. Passing through the states of Mississippi, Alabama, and Georgia; in 27 minutes more it will arrive at a point in Pendleton county, South Carolina, in latitude 34 degrees 37 minutes, N. lon. 82 degs. 38 min. W. where the sun will be centrally eclipsed on the meridian. Thence passing over North Carolina into Virginia, in 14 minutes it will cross James river, near Richmond, and continuing in nearly a direct line, in 8 minutes will leave the Jersey shore at Little Eggharbor, passing a few miles east of Montauk Point; in 8 minutes it will leave the eastern shore of Cape Cod at Wellfleet, and in 6 minutes will enter upon the southwestern extremity of Nova Scotia. Thence passing over the island of Newfoundland, and increasing in velocity, as it approaches the verge of the earth; in 19 minutes more it will leave its disk in lat. 51 degrees, 58 deg. 40 min. W. lon. at which point the sun will set centrally eclipsed at 4 h. 30 m. or 6 h. 25 m. Greenwich time.

The eclipse will have been 2 h. 31 m. in crossing the earth's disk, and about one hour from its entrance to the time of its leaving the United States. A line drawn through the above points on the map of North America, will pass through all those places where the eclipse is central. Two other lines on each side of the first, at the distance of 50 miles, will include all places in the United States where it will be annular. Its penumbra will precede and follow the centre, at the mean interval of one hour and thirty minutes, making on the central track the beginning and end of the eclipse. Lines drawn on a map of the United States, parallel to the central track at intervals, on the S. side of 100, 135 and 175 miles, and on the north at intervals of 225, 250, and three hundred miles will exhibit, nearly, the respective points where the sun will be 11, 10, and 9 digits eclipsed. By making proportions along the central path of the eclipse, of the intervals of Greenwich time and protracting the hour lines at right angles, the time and phases of the eclipse may be found for nearly any place in the United States, observing to reduce the Greenwich time to that of the place of observation.

This eclipse will be visible over every part of the North American continent and the West Indies, and will be seen as far south as the city of Quito, in South America.

THE FARMER.

Baltimore, Friday, August 6, 1830.

Culture of the Grape.—Extract.

J. S. Skinner, Esq. *Columbia, (S. C.) July 23d,* 1830.

Dear Sir,—I shall endeavour to avail myself of your suggestion, of writing an article on the culture of Table Grape, for private gardens, and also for those that furnish the markets. From the limits of my knowledge, you must not expect *much of a piece;* but I shall do as well as I can. You must have received before this a copy of my answer to one of my numerous correspondents.[*] As it is on the subject of Wine making, it is well it should be inserted very soon; for the time of vintage is very near at hand in the Southern States, and I shall begin with my early grapes next week, and in two or three from this, my principal crop of Madeira. With regard to the copy of my letter alluded to, I must observe that the request was made particularly as to *my way* of making wine by using sugar, and that therefore, the answer is chiefly to this purpose; but I regret that I did not give more fully my reasons for using *some* sugar, and my firm conviction that a better and more wholesome wine, though less strong, may be made here without sugar, by having proper cellars to keep it in, using only the grapes produced on the *oldest vines* and suffering the grapes to attain the *fullest degree of maturity possible.*

I am very respectfully, sir, your obedient servant,

N. Herbemont.

☞ The odour of a garden in August is delightful, from the combination of both fruits and flowers. It is said the fragrance of flowers depends upon the volatile oils they contain; and these oils, by their constant evaporation, surround the flower with a kind of odorous atmosphere, which, at the same time it entices larger insects, may probably preserve the parts of fructification from the ravages of the smaller ones. Volatile oils, or odorous substances, seem particularly destructive to minute insects and animalcules which feed on the substance of vegetables: thousands of aphides may be usually seen in the stalk and leaves of the rose, but none of them are ever observed on the flower. Camphor is used to preserve the collection of nauticles. The woods which contain aromatic oils are remarked for their indestructibility, and for their exemption from the attack of insects; this is particularly the case with the cedar, rose-wood, and cypress.

☞ Diminished Produce of Grain.—Frechland, a Danish writer, has instituted a very minute inquiry into the decrease which has taken place in the produce of grain, as compared with ancient times; and has adduced a host of curious facts to establish this circumstance, though he confesses that, in every instance, he cannot take upon himself to vouch for their accuracy. According to the book of Genesis, the soil of Gerara, a town of the Philistines, yielded one hundred for one; and, according to Herodotus, the lands near Babylon, which were irrigated by the canals drawn from the Tigris and Euphrates, produced three hundred for one; Theophrastus, however, records, that with very little attention, fifty for one could be obtained, and with skilful cultivation, one hundred. Varro tells us, that in Syria and Byzacium (the present site of Tunis,) the soil yields seed a hundred fold; Strabo relates the same thing of the land about Leontium in Sicily, and also speaks of the trecentuple produce of the Babylonian territory, but that it was confined to barley alone. Niebuhr, in his Travels, attributes an equal measure of fertility to the environs of Alexandria; observing that the hard grain, called *bourra*, produces one hundred and fifty for one, and that at Tekama as many as two hundred, and, at times, even four hundred seed were obtained from every grain sown. Sismondi reports, (in his sketch of husbandry in the Tuscan dominions,) that some districts return one hundred and one hundred and twenty fold, and that many parts of Sicily are of still greater fertility. Frechland is of opinion that the ancients pursued a more perfect system of husbandry than ourselves, and thus endeavours to account for the amazing fertility of such soils as were of a naturally productive character. He considers that, in those parts where there has been a decrease of this fertility, the fault is ascribable to the husbandman, and not to the land; and that where due pains are taken, the soil will be found to be as productive as it was in former times. As regards the northern climes, and particularly Denmark, we are told by him that each grain of wheat yields eight, and barley between twelve and fourteen.

☞ Yeast.—The yeast prepared by the Hungarians will keep for a whole twelvemonth. During the summer season they boil a certain quantity of wheaten bran and hops in water. The decoction is not long in fermenting, and when this has taken place, they throw in a sufficient portion of bran to form the whole into a thick paste, which they work into balls, that are afterwards dried by a slow heat. When wanted for use, they are broken, and boiling water is poured upon them; having stood a proper time, it is decanted, and in a fit state for leavening bread. The Romans prepared their yeast much the same way; taking wine in a state of fermentation, and working up a given quantum of the flour of millet with it; the paste thus obtained was made into balls and dried. It often happens that the yeast, the leavened dough, or the dough itself, will become acid in summer and acidulate the bread; this may be remedied by throwing some fingersful of carbonate of magnesia into the yeast or paste.

Latest Foreign News.

Our latest dates from England are to the 27th June, and from France to the 24th. The King was alive late in the evening of the 25th, but his death was hourly expected. The French army had landed at Algiers, and taken possession of some outworks. The following is the official bulletin of the landing of the army. In some other accounts of the affair, the loss of the French is stated to be 48 killed, and 120 wounded.

Paris, June 23.

Algerine Expedition.

To his Excellency the President of the Council of Ministers.

Sidi Feruch, *June* 14, 1830.

Prince—The naval army which was detained eighteen days in the Bay of Palma waiting for the flotilla of transports, set sail on the 10th June. The wind, which was at first light, increased so much as to cause some damage to several small vessels, and two boats loaded with cattle were lost with part of their crews. At day light, on the 12th, we made the African coast; but the wind increasing and the agitation of the sea, prevented our effecting a landing. The fleet then stood off from the land, and light vessels were directed towards the peninsula of Sidi Feruch and the two adjacent shores. The certainty of finding a favorable anchorage; the shelter which the direction and relief of the coast provided against the winds; the nature of the ground, which, being open for 4,000 metres from the sea, prevented the enemy from lying in ambush, had for some time attracted our attention to this part of the coast.

Our retrogade movement terminated on the 12th, at 9 in the evening; the sea became calmer during the night, and at day light on the 13th we were only two or three leagues from Algiers. The troops shewed the greatest alacrity, and the cries of *Vive le Roi* resounded from all quarters; the naval army which had proceeded towards the South, changed its course and sailed along the coast, towards the peninsula; they were destined to attend the works which the enemies might have constructed at the point of landing. The wind being from the east, we determined to land on the west side of Sidi Feruch. At 10 o'clock A. M. the armed vessels of war were abreast of this peninsula, and the tower mounted on it was abandoned. The enemy had disarmed a battery of twelve pieces of cannon, with which they should have expected to receive our fire. A camp was established about a league from the shore, in advance of which were several batteries and troops of Arabian cavalry.

A steam boat soon approached the coast, and her fire soon dispersed the cavalry. The enemy's batteries directed some shot and several bombs towards our anchorage, but without effect. At 8 o'clock, P. M. the three squadrons, the first division of the convoy, and the flotilla with the landing forces, had cast anchor.—Orders were given to commence landing on the 14th. The first division reached the land at 5 A. M. without meeting with any resistance; the other two divisions landed in succession. Gen. Berthezene took the lead with the first division and eight pieces of cannon.

The enemy's batteries soon opened a fire and continued it, although they were opposed in front by our artillery, and received some shots from the vessels which were placed to the eastward of the peninsula. Gen. Berthezene received orders to turn upon the left of the position which the enemy occupied. This movement had the desired result; the batteries were abandoned—thirteen pieces (16 pounders) and two mortars fell into our hands. The divisions Loverdo and d'Escars followed the movement of the first, and the enemy fled in every direction.

Our soldiers discovered as much sang-froid as they had, up to that moment, shewn enthusiasm. We lost 20 men, and no officers wounded.

The aspect of the ground in front of the peninsula corresponds exactly with Col. Boutin's description—it is sandy and slightly undulated; it is completely covered with strong furze.

The peninsula is a calcarious rock, on which there is a *santon*, to which the Spaniards have given the name of Torre Chica. It will serve as a depot for our provisions of every kind. Gen. Valaze has here marked out an entrenchment, the construction of which has already been commenced. I have the honor to be, Count de BOURMONT.

Greece.—A French paper states that Scio is not included within the boundaries of Greece, as fixed by the London Proctocol of Feb. 3. We learn from that island that the whole population are deeply distressed at the idea of falling again under the yoke of the Turks, and are extremely anxious to avoid it. The Sciots who fled to Greece have just addressed a proclamation to their countrymen, in which they call upon them to quit their country, now subject to the Ottoman power, and found a colony in the isle of Negropont, where they would have a fertile soil, almost uninhabited.

Turkey.—The following intelligence, dated Constantinople, 25th May, is extracted from the Augsburgh Gazette: "Yesterday the Sandschak-Scherif, (the sacred Standard of the prophet) accompanied by the Sultan, was removed from Ramis-Tschiftlik to the Seraglio with the usual ceremonies. Immediately after the Sultan departed for Therapia, where he will reside during the summer. The Grand Veser set out for Albania on the 17th inst., in order to put an end to the disturbances that have broken out there lately. On the 21st, Sarum Effendi, Halil Pacha's secretary, arrived here with the convention concluded at St. Petersburgh, concerning the payments to be made to Russia by the Porte. The American Commodore and M. Offley, Consul from the U. States at Smyrna, who are charged, in conjunction with M. Rhind, with the negociation of a treaty of commerce and amity with the Porte, arrived here from Smyrna yesterday; the exchange of the ratification is to take place forthwith."

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[*] Published in No. 19, American Farmer.

Portugal.—*Lisbon, June* 5.—Private Correspondence.—Proclamations in the name of the young Queen Dona Maria de Gloria, are again distributed in our capital with great profusion. They are accompanied with several decrees, by virtue of which a Court of Justice, and a new Ministry and Council of State are instituted at Terceira. Every effort is made by the government to discover the agents by whom they are put in circulation.

Markets.—A Liverpool Circular of the 26th June, states that the sales of Cotton for the week ending on the 25th, amounted to 30,480 bales; and in some descriptions 1-8d advance had been realised. The imports were 10,000 bales. The sales on the 25th, were 9,700 bales, of which 7000 were American. On the 26th, the sales were 2,500 bales.

Flour.—In consequence of the rain and appearance of the weather on the 25th, 6000 barrels of American superfine flour were sold at 28s; but the weather being fine on the 26th, it was doubted whether that price could then be obtained.

Liverpool, *Friday evening, June 25th.*

We have again to raise quotations of most kinds of Cotton. American descriptions are pretty generally 1-8d higher, Brazils and Surats more decidedly so. All have an upward tendency. But it may at once be inferred that holders have freely supplied the demand, when with sales amounting to 30,480 bags there is so little advance in price. The market is pretty well supplied with an assortment. It is understood that about 3500 bags of American have been taken on speculation.

June 26th.—The sales yesterday were not less than 10,000 bales. This shows the readiness with which the holders bring forward their Cotton.--[This 10,000 bales is included in the week above stated.—Edits. Jour Com.]—Prices this day. Orleans 6 3-8 a 8½d; Alabama 6 1-8 a 7¾d; Upland 6¼ a 7½; S. Island 12 a 20d; stained 6 a 12; 90 Sea Island 13d a 16d; 30 stained 7½d; 6490 Orleans 6¼ a 8d; 4340 Tennessee and Mobile 6 3-8 a 7¼d; 8610 Upland 6¼ a 7¼d; 410 Egyptian 7½ a 9d; 1370 Pernambuco 7 5-8 a 8¼d; 1230 Bahia 7 3-8 a 7¾d; 4010 Maranham 7¼ a 7¾d; 90 Demarara 7 5-8 a 8 7-8d; 4010 Surat 4 1-3d a 5 7-8d.—Import, 9113 bales, of which 7755 are American.

P. S. to a letter from Cearns & Crary, dated 26th.

The sales of cotton yesterday amounted to 10,000 bags of all kinds. To-day they are 2500. In the fortnight ending yesterday there is an improvement of ¼ a ½d per lb. in prices.

Nothing new in general produce. The weather has been on the whole fine to-day, and rather checked speculation in the corn market. Flour selling at 28s per brl. in bond, and there appears to be no disposition at all to concede in prices.

Havre Markets, June 21.

The price of wheat in the neighbouring markets continue to rise on account of the bad weather.—There is no Am. flour in first hands. The article is retailed at 36f. and above, according to qual. The cargo of rice, per the Sublime, was immediately sold at 22 to 23f. The sales of Cotton the last week have been only 1835 bales.

Sales 21st, 133 bales Georgia Cotton, at 89½; 230 do. at 92; 488 Louisiana, Mobile, &c. 85 to 102½; 3,000 lbs N. York Wax, 1.52½.

Prices Current in Boston, July 30.

Apples, best, bbl. .200 a 3.00. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 6.50 a 6.70. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, 7. a .8; skimmed milk, 3. a .5. *Flour*, Baltimore Howard-st. 5.37 a 5.63; Genesee, 5.37 a 5.75; Rye, best, 3.50 a 3.87. *Grain*, Corn, bu. .46 a 55; Rye, .65 a .67; Barley .60 a .65; Oats .40 a 42. *Hogs'-Lard*, 1st sort, new, lb. 10.50 a 11. *Pork*, clear, bbl. 17 a 18; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 2.00 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .33 a. 38; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet ——; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .50 a 55; do. do unwashed, .30 a .35; do. three-fourths, washed, .42 *a* .45, do. half blood, .38 *a* .42; do. quarter, washed, .35 *a* .40; Native, washed .35 a .37; Pulled, Lambs', 1st sort, .— a 50; do. 2d sort, .38 a .42; do. Spinning, 1st sort, — a .40.

Prices Current in New York, July 31.

Bees-wax, yellow .20 a 22. *Cotton*, New Orleans .10¼ a .13; Upland, .9½ a .11½; Alabama, .10 a .12. *Cotton Bagging*, Hemp, yd. .18 a .20, Flax .12 a .17. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 4.87½ a 5.00; Canal 5.00 a 5.50; Balt. Howard st. 5.12½ a 5.25; Richmond city mills, —— country, —— a 4.75; Alexand'a, 4.75 a 5. Fredericksburg 4.69 a —— Petersburg, 4.75 a ——; Rye Flour, 3.37½ a 3.50; Indian Meal, per bbl. 2.50 a —— per hd 12.75 a 13.00. *Grain*, Wheat, North, —— a ——; Vir. 1.00 a 1.07; Rye, North, 66 a 67; Corn, Yel. Nor. .54 a 56; Barley, — a — Oats, South and North, .33 a .40; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 10.00; prime a 6.25 a 6.75; cargo —— a —— Butter, N. York, 12½ a 15; shipping, 8 a 10; Lard, .9 a .10½; Pork, mess bbl. 13.50 a 14.00, prime 9.75 a 10.00; cargo ——.

Prices Current in Philadelphia, August 2.

Bees-wax, yellow .20 a .21; *Beans*, bushel $.75 a .80; *Beef*, mess 10.00 a —- prime 8 a 9, cargo 7; *Butter*, No. 1, 7 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .11½ a .13½; Upland 10½ a 11½, Tennessee 10½ a 11½, Alabama 10½ a 11½; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 5.25, fine, 4.62½ a —— Rye 3.43¾ a —— Corn meal, hds. 11.00 a —-, bls. —— a 2.37½; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat .94 a .95 Rye 52a 54, Corn l. c. white, . 45a .46, l. c. yellow, 47 a .48, u. c. round, 51 a 53; Oats .33 a .35; Barley, Pa. .48 a .62; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey 10. a 11, Virginia 10 a 11, Western 9 a 10 *Hemp*, 210 a 220; *Lard*, .- a .7; *Oil*, linseed, 80 a —; *Pork*, mess, 13 a 4.50 ——, prime 11.00 a —; cargo 11. *Rice*, 2.25 a 2.50; *Tobacco*, Kentucky .3 a .6, Vir. .3 a .05. *Wool*, common washed lb. .40 a .45, half blood .50 a 53, three quarters blood . 53a 57, full blood 58 a .60; unwashed, generally 10 cents less, according to quality.

Prices Current in Charleston, July 26.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 25. Upland, inferior and common .9 a .10, fair to good, .10 a 10½, prime to choice, .10¾ a .11 5-8. *Rice*, prime, $2¼ a .2½, inferior to good, do. $1.87½ a .2.12½. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5.37½ a .5.50. *Corn*, North Carolina, .— a -—.; Maryland, .46 a .48. *Oats*, .37 a .—; Peas, 65, sales. *Hay*, prime Northern, .85 a 90. *Whiskey*, Philadelphia and Baltimore, hhds. .25 a .—-; bbls. 26 a 27; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork*, Mess. .14 a 14½; Prime, .— a .11, scarce. *Bacon*, .7 a .— cents; Hams, .8½ a 9; Lard, — a 9. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

AGENCIES.

The Subscriber is agent for the following persons, and all orders directed to him, or left at his Agricultural Warehouse and Seed Store, No. 36, West Pratt street, Baltimore, will be promptly attended to.

Viz. for Messrs. Walker and Hammond's Iron Foundry, where all kinds of *Castings* can be had, equal to any made in this country, and on reasonable terms.

Also, for Messrs. Peirson and Walker, manufacturers of all kinds of *Spindles* for factory use, these will be warranted equal or superior to any ever before made in or imported to this country.

Likewise, agent for the Messrs. Robbins's improved *Corn Planter* for planting or sowing all kinds of seeds; can furnish the machines or dispose of the patent right. All communications by mail must be post paid.

Also, general agent for Messrs. D. & C Landreth's Seed and Horticultural Establishment at Philadelphia.

Also, a general assortment of Agricultural Implements on hand as usual, &c. J. S. EASTMAN.

ALMANAC.

1830. August.	Sun. Rises.	Sun. Sets.	Length of days.	Moon. rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 7	5 03	6 57	13 54	8 50
Sunday,...... 8	5 04	6 56	13 52	9 30
Monday,..... 9	5 05	6 55	13 50	10 10
Tuesday,.... 10	5 06	6 54	13 48	10 53
Wednesday, 11	5 07	6 53	13 46	11 40
Thursday,... 12	5 08	6 52	13 44	morn.
Friday,....... 13	5 09	6 51	13 42	0 25

Last Quarter—11th, 10h. 9m.—Morn.

BALTIMORE PRICES CURRENT.

Baltimore Markets.—There is very little alteration in the prices of produce. The scarcity of Howard street flour has caused a small advance, the wagon price being $5.25. There is also a small advance in best white wheat. Beef continues dull, and there appears to be a struggle between buyers and sellers, the one trying to reduce and the other to maintain the price of prime beef, for which the drovers are asking $5, and the victuallers offering $4 to $4.50.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a 28 00—St. Domingo, 8.00 a 15.00. The inspections of the week are 314 hhds Maryland, 30 hhds. Ohio; and 39 hhds. Kentucky—total 383.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard-street 5.37½—-city mills, 4.75 *a* 5—Susquehanna, ——; **Corn Meal**, bbl. 2.25——**Grain**; best red wheat, new 93 a 95;—best white do. new 1.02 a 1.05 common red 85 *a* 90——**Corn**, white, 45 *a* .—yellow .45 *a* .——-**Rye**, .45 *a* .46-—**Oats**, .25 *a* .——**Beans**, .90 *a* 1.00-**Peas**, .40 *a*. 50-**Clover seed**, 3.75 *a* 4. **Timothy**, 2.50 *a* ———**Orchard Grass**, 1.50 *a* 1.75—Herd's, .75 *a* 1.25—Lucerne 30 *a* 37½ lb.—**Barley**,-**Flaxseed**, 100 *a* —**Cotton**, Vir. 9½ *a* 10½—Lou. 11 *a* 12—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—**Whiskey**, hhds. 1st p. .23½ *a* .24; in bbls 24½ *a* 25—**Wool**, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-**Hemp** Russia, ton, $210 *a* 212; Country, dew-rotted, 5.5½c. lb. water-rotted, .6c.—**Fish**, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, -— No. 2, 5.50 *a* 6.50—No. 3, 3.50 *a* -—**Bacon**, hams, Balt. cured, .9½ *a* .10—-Feathers, .— *a* 35—Plaster Paris, cargo price per ton, 3.93 *a* —ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.00 *a* 5.00—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy.

AGRICULTURE.

AN ADDRESS

To the Agricultural Society of Bucks County, (Pa.) delivered at their Annual Meeting, on the 12th November, 1827, *by* S. D. Ingham.

There is no pursuit that has yet engaged the attention of man, which offers such an interesting variety of useful and valuable matter for the contemplation of the economist, the moralist, the philanthropist, or the philosopher, as that which constitutes the object of this association.

The cultivation of the earth, and the improvement of its productions, by increasing their quantity and value, and adapting them to the purposes of animal food, seem to have been among the first considerations which presented to the mind of the omniscient Creator, after he had constituted human existence on our globe. And without detracting from the character of any other occupation which has been produced by the wants of civilized society; it may with great propriety be asserted that agriculture stands foremost in the order of all human arts; that it is the favored handmaid of the Deity in perfecting through human instrumentality the beautiful works of his will; and that while it subdues and adorns the inanimate world, giving the means of subsistence to animated nature, increasing and multiplying its beings in rapid progression; it is the grand agent employed by the same Almighty hand to promote the civilization of the human family: Whatever superiority civilized man, who indulges in all the comforts of life upon the product of a single acre, can boast over the untutored and ferocious savage who roams upon 10,000 acres for a scanty subsistence; this superiority and all its train of blessings, we owe under Providence, mainly to our skill in cultivating the earth.

After God had created man he blessed him and commanded him to "be fruitful and multiply and replenish the earth *and subdue it.*" In this brief and emphatic mandate we find the elementary law which fixes the great plan of human affairs in our world. The constitutional desire to perpetuate our existence and preserve life, accompanied by the necessity for nourishment to sustain it, constitute the grand causes, beyond which reason cannot look, that give action to the whole operations of our physical existence.

Man by nature is prone to indolence and can only be stimulated to action by the love of pleasure or some unyielding necessity; but it is a law of his creation that these stimulants shall attend him—he cannot subsist without food, and is therefore compelled to toil for it, and the multiplication of his race causes a proportionate necessity for increasing the means of subsistence, and consequently for increased exertion to procure them: thus his passions and his appetites are made the instruments of his own improvement, and propel him forward from indolence, vice and the grovelling habits of the semi-brutal savage, to the enjoyment of the comforts, luxuries and elegant accomplishments of civilized life; and he whose whole mind would have been absorbed in the love of ease, love of pleasure and selfish love of existence, is thus changed into a being devoted to industry, social affection and love of justice.

I will not further occupy your time in marking the progress of the primary laws of our nature, and their agency in the work of civilization; let it suffice to observe that they operate through the regular succession of causes and effects, and are directed and controlled, by an all-wise hand to the great end and object of our creation, the intellectual and moral perfection of human existence.

It has already been observed, that the art of agricultural economy is among the primary agents in this great work, and it may be added, that it is not only a necessary auxiliary in giving the first impulse, but must be a constant attendant and support of it, in every stage of its progress.

But I must proceed to the more immediate consideration of the topics for the investigation of which the appointment of an annual address was designed. Permit me, however, to observe, that the various and care-engrossing pursuits in which it has been my lot to be engaged from early life, as most of you know, have precluded that minuteness of observation and accuracy of experiment which would be indispensable to enable me to offer any thing of much value, *from that source,* by way of instruction to a society composed of some of the best practical farmers in the United States; but being sensible of the kind indulgence which you will be disposed to extend to every well meant endeavour to make the smallest addition to the general stock of knowledge, I have been encouraged to undertake the duty you have been pleased to assign me.

A distinguished writer, whose works are imperishable, has immortalized, *as a great public benefactor,* whoever "*shall make two blades of grass grow where but one grew before,*" and if to this simple idea, we add, that of *improving the quality of the plant,* we have presented in a small compass a view of the whole end and design of agricultural improvement. But however simple this purpose may seem to be, the means for its effectuation are so diversified, and embrace so vast a scope of the operations of human ingenuity, and the point of perfection is so far beyond our reach, that we may contemplate the progress of agricultural improvement, as we do the approach to the termination of boundless space or the conclusion of endless time; *it certainly has no limit,* and yet every development of an useful fact brings a delightful reward for our efforts, that cheers us on the way, and more than reconciles us to the pursuit of our unapproachable object, by the assurance that our labor cannot be lost, as posterity must begin where we have ended. Emerging from the hunter state, we commence our work of improvement by clearing away the native forests and employing the plough to turn up the soil and expose it to the genial action of light and air and heat, and at the same time turning down the upper surface with its load of undecomposed vegetable matter, to putrefy and dissolve for the support of another growth.

It might have been expected that science would ere this have reduced to certainty many facts in relation to the nourishment of plants, which we now only know as general speculative truths: but this knowledge is yet in its infancy; we learn, indeed, as far as any fact can be known from a mass of strong and uncontradicted evidence, that nature makes no new creations now: nor does she suffer any of her created matter to be annihilated; she may, however, be said to delight in changes, and to be constantly practising in the art of transformation of bodies. Those phenomena which we are accustomed to regard as appearances of destruction and annihilation, are only the regular operations of her fixed laws, or the sports and freaks of her subordinate agents.

Man cannot change these laws, although he may by special combinations made in obedience to them, increase or diminish their effective power: this is all we can presume to do: so imperfect is our knowledge on this subject, that it is not known with any certainty, what constitutes the proper combination of matter for the best pabulum of any one plant in the whole vegetable kingdom. Experience and observation have indeed taught us that their habits are as various among the different genera and species, as are those of the animal race; some require a temperate climate, and a fertile soil; others prefer the torrid, others the frigid zone, and thrive on a burning sand, or under beds of snow; some grow in the bottom of rivers, lakes, and even of the ocean, while others float on their surface, seemingly independent of the earth, the supposed parent of all vegetation; and there are a few vegetable as well as animal parasites, which continue to subsist upon the substance of others; these varieties of habits in plants prove the difficulty of determining the proper combination of elements best adapted to their support; but the difficulty or even impossibility of attaining all we desire to know, is no reason for relaxing our pursuit after useful knowledge. Science has given us many facts, which when thoroughly tested by the light of experience, may become of great use in settling principles, and establishing theories, in agricultural economy, which may tend to narrow the field for mere speculation; and relieve the practical cultivator of the earth, from the labor and expense of many unnecessary experiments.

The plainest dictates of reason would suggest, that when we are about to cultivate a plant, we should first ascertain its particular habits and especially what constitutes its favorite aliment; and wherever we begin the study of agriculture or horticulture, either practically or scientifically, this must be one of the chief objects of our researches: in pursuance of this idea, I have selected chiefly from the works of the German chemists a few extracts shewing the results of the chemical analysis of the seeds of various plants, and other practical experiments in relation to them. By these experiments it was ascertained that the following earths and metallic oxydes were found in 32 ounces of—

	Wheat.		*Rye.*	*Barley.*	*Oats.*	*Rye st.*
Silica	13.2	grs.	15.6	66.7	144.2	15.2
Carbonate of Lime	12.6	‘	13.4	24 8	33.75	46.2
Carbonate of Magnesia	13.4	‘	14.2	25.3	33.9	28.2
Alumina	0.6	‘	1.4	4.2	4.5	3.2
Oxyde of Manganese	5.0	‘	3.2	6.7	6.95	6.8
Oxyde of Iron	2.5	‘	0.9	3.8	4.5	2.4
	47.3		48.7	131.5	227.8	238.8

It should here be observed that a great variety of other ingredients have been detected in these vegetables, as well as in others. It is also known that the absorbent vessels of plants receive substances, which are not only unnecessary as food, but actually destructive of vegetable life, from which it may be inferred that only a part of the ingredients found in them are beneficial to their growth; the best rule, perhaps, to guide our researches in ascertaining the proper nourishment of plants, would be to regard those substances which are peculiar to all plants, and all soils, as constituting either their primary nourishment, or the most important agents in preparing it for use. In pursuance of this idea I would observe that *all soils are found by chemical analysis to contain the following earths, viz: silica, lime, alumina and magnesia;* and it is remarkable that *these are the only earths yet found in plants:* and if to these we add the other simple substances of which plants are chiefly composed, viz. carbon, hydrogen, oxygen, and azote, we may presume to have included in our list, those ingredients which constitute as well the primary food of vegetables as the chief agents employed by nature in its preparation. This is further proved by the analysis of the matter that composes vegetable seed already noticed, because it is evident that this matter supplies the food of the embryo plant in the process of germination, which being prepared by nature herself, is no doubt the most perfect ingredient for that use. If any further evidence were necessary to show that the substances above mentioned are the great instruments of nature, in the process of vegetation, we have it in the universally established fact, that decomposed animal and vegetable substances (which are similar in their constituent parts,) are the most agreeable nutriment we can offer to the growing plant. That the earth is employed as a menstruum for preparing and preserving the food of plants is very certain, but you will be surprised to hear that it has even been doubted by some very learned experimentalists whether the earth was at all essential in this great work of vegetation, "Van Helmont," says Dr. Thompson, "planted a willow, which weighed five pounds, in an earthen vessel filled with 200 lbs.

of soil, previously dried in an oven, and moistened with rain water, this vessel he sunk into the earth, and he watered his willow sometimes with rain, and sometimes distilled water; after five years it weighed 169¼ lbs. and the earth in which it was planted when again dried, was found to have lost but two ounces of its original weight."

Schrœder, of Berlin, planted seeds in the flour of sulphur, also in the oxydes of zinc and antimony, moistened them with distilled water, and they came to maturity, and what is very remarkable, plants raised in this manner were found to contain the same ingredients with those raised from soil.

These experiments seem to prove either that water contained all the earths found in the plants, or that earths were formed in the process of vegetation. It was ascertained, however, by *Saussure,* that plants raised in soil yielded more than three times the quantity of fixed matter, that was obtained from those fed on distilled water; and it was further ascertained that plants raised without earth, gradually deteriorated and finally produced no seed; which must remove the doubt as to the necessity for earth in supporting the vegetable kingdom. It has been remarked by Dr. Thompson, that "soil consists of two parts, namely, pure earths which constitute its basis, and the remains of animal and vegetable substances applied as manure;" but it must be obvious that the vessels within the fibrous roots of plants through which their nourishment is mainly received, are too minute to take up substances of any kind, not in a state of solution, hence the necessity for active chemical agents to decompose and dissolve whatever ingredients are to be imbibed. There are no doubt many of these whose functions are but little understood; but all our experience added to the facts already noticed, proves that water is one of the most efficient and essential of these solvents. It has been observed that "the carbonaceous matter in all active manures is in such a state of combination that it is soluble in water: all the salts which we can suppose to make a part of the food of plants are more or less soluble in water. This is the case also with lime whether it be pure or in a state of a salt, and magnesia and alumina may be rendered so by means of carbonic acid gas." Bergman and others have shewn that even silica may be dissolved in *water*. Air is also essential to vegetation; it supplies oxygen, without which seeds will not germinate, and also carbonaceous matter. Heat is also indispensable to the support of vegetation; and is a powerful agent in the decomposition and solution of fixed matter. The earth no doubt operates both as a menstruum for the extraction of alimentary matter from substances in its presence, and as a laboratory and reservoir for their preparation and preservation, and also as a medium to equalize the action of water, air and heat, and other subordinate agents employed in preparing and distributing the vegetable aliments. As a further proof of the fact that silica, lime and alumina are among the most essential ingredients in vegetation, it may be observed that their mechanical organization is peculiarly adapted to regulating the supply of water, as the dryness or moisture of a soil will very much depend upon the proportion of these earths contained in it; those which contain the greatest quantity of silica (sand) are least retentive of moisture; and those which contain most alumina (clay) retain it the longest; lime is an intermediate agent between these opposite capacities; it increases the tenacity of a sandy soil, renders it more retentive of moisture, while it destroys the tenacity of a clayey soil, and diminishes its wetness: these facts suggest a very important function of these simple earths, which are found in all soils and in all plants. But let us consider whether any sufficient data are furnished by known facts, and the experiments I have noticed, to settle any principles or establish theories which can assist us in the useful branches of our pursuit; for unless experiments and speculations lead to such results, they degenerate into mere matters of amusement for idle curiosity. I indulge some hope however that those I have brought into view will not be found entirely of this character, they have been considered with some care, and subjected to the test of such light of observation and experience as I could command. It may I think be affirmed that moisture, air and heat are necessary to the decomposition of vegetable substances, and that the substance of seeds prepared by these agents constitutes the natural nourishment of the young germ of plants.

2. That the same process by which the food of the young germ is prepared takes place in the preparation of the food of the growing plant.

3. That silica, lime, alumina and magnesia being found in all soils and in all plants, a portion of these earths must be dissolved by other agents and absorbed through the vessels of the fibrous roots of vegetables; and hence a proper mixture of them in the soil, is highly beneficial if not essential to vegetation.

4. That these earths are not only important in the foregoing particular, but they equalize the supply of moisture and perhaps of heat, for the support of the plant, which might be injured by the presence of too much or too little of these agents.

5. That the proportions of silica, lime and alumina will determine the capacity of the earth for retaining and equalizing *heat and moisture,* the chief agents in the preparation of the food of plants.

6. That as the earth receives and retains the dissolved ingredients (gasses) which nourish plants, it may be inferred that all undecomposed substances intended for manure, will be most economically used by first mixing them with the earth, which will thereby receive the dissolved matter and prevent its escape into the atmosphere.

7. That a compact clay soil which resists the action of heat and moisture, and the efforts of the fibrous roots in quest of food, will be corrected in both these respects by a mixture of lime and sand.

8. That a sandy soil which has not sufficient tenacity to retain moisture may be improved by the addition of lime and clay.

9. That all soils abounding in acid (especially those containing undecomposed vegetable matter) may be rendered fertile by the free use of lime alone.

10. That in addition to the foregoing properties of lime, it attracts by chemical affinity a portion of carbonic acid gas from the atmosphere, and if silica be, as Sir H. Davy supposes, an acid soluble in potassium, it is not improbable that nature by her obscure operations in the process of vegetation, may through the agency of lime dissolve a portion of that earth and prepare it for vegetable nourishment; if so it will account for the very remarkable effect of lime upon sandy soils.

11. That as decomposition of vegetable matter in the earth is slowly effected, and as the food of plants must be in a state of solution which succeeds decomposition, *that* soil in which these operations are most perfectly performed is best adapted to nourish the tender plant which has just emerged from the parent seed; and hence all soils into which seeds are planted, are best adapted to their growth, when most perfectly pulverised, in which state they give out most freely the gasses which are absorbed by the fibrous roots.

12. Those crops which arrive at maturity in the shortest time, require the most perfect preparation of the soil.

13. Those crops which are the longest time in attaining maturity, require a portion of undecomposed manure to sustain their latter growth and the ripening of their seed.

A more minute examination of this subject will suggest many additional considerations worthy of notice, but I have endeavoured to confine myself to such as would bear the test of close practical observation, and such I believe are those I have suggested.

An inquiry into the habits and dispositions of esculent plants, as to climate, soil and constitution, would be an interesting subject for investigation, in an agricultural community; in this persuasion I shall notice a very few particulars by way of introducing it to your attention, in the hope that some one, having more leisure and better qualified for the task, will pursue it further. It is a branch of our art which exclusively belongs to the practical farmer. There is perhaps no vegetable which endures so many climates as wheat; it is found I believe in every parallel of latitude from the equator to the arctic circle; it is by no means very sensibly affected by heat or cold, by drought or excessive moisture, and yet in some respects it is one of the most delicate and difficult of culture; there are many soils in which it refuses to grow; it requires great care in the tillage of the soil; it prefers and demands a copious supply of nutritious food; and is withal so tenacious of the entire enjoyment of the food provided, that it languishes in the presence of every other plant which may intrude within its bounds. But notwithstanding all these properties, there are some facts to prove that it does not very materially exhaust the soil, all the grasses sown among wheat succeed I believe better than upon any other crop. Rye is scarcely less universally acclimated than wheat, but being a less favoured grain, does not attract so much notice; it grows well upon an indifferent soil, but refusing almost every other plant the least share of its support, exhibits the appearance of an hungry, all-devouring gormandizer; and yet tolerable crops of rye have been grown on comparatively sterile sands that will not produce grass of any kind, and this too for every 2d or 3d year for a century, without a particle of any kind of manure! Quere, Is it not supported by silica dissolved with water.* and its vessels adapted to absorb food less perfectly dissolved than most of the plants?

Indian corn grows from about 43° to the equator; it prefers a climate between 30° and 40°, requires but a light soil, *if* the climate be warm, but if not suited in the climate, it demands a rich mould thoroughly prepared, and constant attention to keep out intruders of every description; it no doubt exhausts the soil considerably, but not in proportion to other grain, when compared with the quantity of nourishment it affords. Of this grain it may be observed, that it is preferable as a food for man or beast to the barley, pulse or turnip, or any of the roots so much famed in European agriculture; and withal yields a much greater quantity of nutriment from the same ground and with the same labour than any of those vegetables. Potatoes, which are now the staff of life for the poor of a great part of the old world, as well as an article of luxury on the tables of the most wealthy, prefer a cool, moist climate, and a soil that resists the approach of both light and heat; the summit level regions of the middle and northern states produce them in the greatest perfection, probably owing to the cool damp atmosphere which is always found in the region of the sources of rivers descending in different directions; this excellent vegetable does not rapidly deteriorate in our climate, and may with a moderate care in the selection of seedlings, be produced in great perfection. The best crops are raised on a northern declivity, in a rich soil without manure, or if it be manured it is better to be done in the fall preceding, otherwise the stimulus of the manure, such as is generally used (without decomposition) will produce many young roots late in the season which injure the growth and quality of the early setting.

Turnips require a much colder climate than potatoes; the month of October in Pennsylvania, with frequent rains, is the proper temperature for them, but our cool season is too short to make a profitable growth of this crop, and we listen in vain to the extravagant accounts of Englishmen as to the value of their turnips. One acre of Indian corn is worth an average of five of turnips in this country, for fattening cattle, sheep or swine, and I have no doubt worth more than two acres of the best turnips of old England for the same purpose. But I must close this course of remarks and pass on.

There is another and a distinct branch of agricultural economy which deserves our notice, viz. the improvement of the quality of the products of the earth, but I must of necessity be very brief upon so expansive a subject.

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* 32 ounces of rye seeds contained 15.6 grains of silica, and the same quantity of rye straw 15.2 grains.

It will have been observed by many that while nature seems to take delight in the increase of her products, she appears to regard with some jealousy every innovation tending to change their quality or character, or at least yields with some reluctance to the importunate efforts of her favorite creature man, in thus seeking to intrench upon the prerogatives of his creator. She thus informs us that the simplest preparations of food are the best for us, and that while she fixes no limits as to the quantity to be allowed, she admonishes us that as long as our appetites are not unnaturally stimulated by the *quality,* we are in no danger from *satiety.* But man is a slave to his appetites, and although the good order of society and religious obligation require that many of these should be restrained, yet none of our civil or moral instructors have had the courage to denounce the art of producing and preparing food for an artificial appetite, as an offence against the moral law. I may therefore without fear of disturbing public opinion suggest a few remarks on this topic:

Some vegetables are improved to a limited extent by grafting, but as nature forbids the seeds of plants or trees thus produced to reproduce their qualities, we can only continue these by repetition of the original process, *no new family being formed.* Many plants might, however, no doubt be improved by attending to a law of their nature, in commingling the fecundating farina of their flowers, by which their fruits are made to partake of the common qualities of several parents. The art of crossing and improving animals so as to advance their best properties is so well understood that it is remarkable the same practice has not been introduced for a similar improvement of those plants whose nature seems to invite such experiments. The most common practice for the improvement of vegetables, is to select the best for seed, and as in most species, like begets its like, a certain advantage, however small, may always be expected from this experiment; but its progress is rather too slow for the natural impatience of man, who by a strange contradiction of reason, generally postpones to the latest period the commencement of that work which requires the longest time for its completion.

There can be no doubt but a careful and judicious selection of the best seeds, from the best plants, *having reference to their habits,* would effect a continuous progression of improvement, in every species of the vegetable kingdom; much of this has been done, but it is a work that never can be finished.

When we recollect the high authority for the fact that "all flesh is grass," it will be useless by a course of reasoning to shew the connection between the animal and vegetable creation, and that the improvement of useful animals constitutes a very important branch of agricultural economy.

This has however not been neglected. That noble animal the horse, justly the most admired of the brute creation, has engrossed much of the care of man throughout every part of the habitable globe; the various races found in every region from the torrid to the frigid zone have been sought, for the purpose of developing, combining, and perpetuating properties that could enhance his usefulness, he has consequently attained a high degree of perfection; but nature is always parsimonious of her most excellent gifts, and it requires but little less attention and skill to preserve the horse at his present point of excellence than it has done to attain it; it has even been apprehended by some that the stock of horses in Pennsylvania has actually deteriorated, but it is probable that this is only *in appearance,* arising from the more rapid progress in some of the neighbouring states; we have not consented to employ as they have done that powerful incentive to action, the love of pleasure and of sports; to stimulate our public spirit and love of money in the improvement of our horses.

Much progress has been made in the improvement of black cattle. The beautifully marbled beef of cattle raised in the northern states, now chiefly in N. York, and fatted upon the rich pastures of the Delaware, has long been famous for its excellence, even among the admirers of the famous roast beef of Old England. These are supposed to be a mixture of the Devonshire cattle, long since imported into N. England, and from thence taken westward with the migrations from that region.

Our native cows are also an excellent stock; more attention has probably been paid to their improvement than to that of any other animal not excepting our horses. Every farmer's wife within an hundred miles of Philadelphia may be said to have one or more excellent cows, the offspring of the best of a favorite stock which had been improving in the family for an age. This practice could not fail in a series of years to make a valuable race, and such a race we have; to these have lately been added some imported breeds. The Alderney, distinguished for the richness of their milk, but rather ill-favored as to form, have had to contend with the prejudices common to whatever does not please the eye; a judicious cross of these with the best native breeds promises an essential improvement in our dairy cattle.

It has been said of the Alderney cows by a highly intelligent practical farmer, (Mr. Pickering,) that they will yield more butter, in proportion to their size and the quantity of food consumed, than any other race, and it is worthy of remark, that there is some delusion in estimating the value of milk cattle by their size; product and cost of keeping are the essential elements which determine this value, and it is a general law of nature that animals should require food in proportion to their size, hence a large carcase is to be supported in a milch cow throughout her term of usefulness for the dairy, for no other advantage than that of having a few pounds more beef when she is slaughtered.

The Durham short-horns, latterly introduced, are also highly esteemed. The symmetry of their form, added to their disposition to fatten, recommend them greatly to the judgment, which decides upon external appearances, and therefore we may expect them to gain in public estimation, not less by the prejudice of fancy, than the Alderneys have lost by the same cause; we have as yet but little experience in the United States as to the quality of their beef, or their general character for the dairy, they are known to be highly esteemed for the former in England, and the presumptions are much in their favor, as a very valuable stock for those sections where cattle can be profitably raised for the shambles: but it may well be doubted whether those cattle which have a peculiar predisposition to fatten, are the best stock to propagate for the dairy; it is not to be believed that the digestive organs can convert aliment into flesh without a comparative diminution of the supply for the udder; or in other words, convert the same food into flesh and milk, and produce the same quantity of each that would have been produced of either if the aliment had been converted into but one. Every cow therefore which inclines to fatten, and yields a large supply of butter, must have a capacity for digesting, and actually consume a corresponding quantity of food; but it is not in nature to unite in one animal two opposite qualities to excess; and further experience will no doubt confirm the general opinion, that all cows naturally predisposed to fatten, which yield an unusual quantity of butter, will only do so, while fresh, under the stimulus of high feeding, and when in full flesh; a forced condition of existence, not to be long maintained; and that their milk will fall away much sooner than that of those which have less pretension to this double property. The difficulty of digesting food enough to maintain high flesh for any considerable time, and an exuberant supply for the churn, causes either the flesh or the milk to fail, according to the predisposition of the animal, or more properly speaking, the conformation of the digestive organs. If therefore any race of cattle shall ever be found, to unite all the best properties for fatting and for milking, which is not to be expected, they must consume a quantity of food in proportion to this demand, and hence there will be little if any advantage in propagating such a stock. But there is another objection to such an undertaking; it is well known that improvement in breeding stock is slow in proportion to the number of qualities which it may be necessary to acquire and maintain;[*] and when any two qualities to be attained, are essentially incompatible, the obstacles to advancing, if not insuperable are greatly increased; but as there is no motive of pecuniary interest to justify this tardy and difficult contest with nature, it is loss of time and labor to enter upon it. Our pastures within the reach of the city markets are more profitably employed in supporting stock for the dairy, while those at a distance have a decided advantage in raising cattle for beef; there is no inconvenience, therefore, but an advantage in having the qualities referred to, kept separate and distinct, in which the attention of breeders can be directed to the improvement of a single quality, instead of struggling against nature to unite two incompatible ones in the same animal.

Of sheep we have now a foundation for the best stock that the world affords; the long woolled race are raised in many places, but not so generally as they deserve to be; the Dishley are esteemed the best of this kind, and richly reward those who give them good pasture in summer and grain in the winter. Of the fine woolled race we have the merino, now in great perfection. This animal has been deemed in Europe worthy to be used not only as a token of royal friendship, but has more than once been made a subject of grave negociation when potentates were adjusting momentous controversies of governments. Commercial enterprise has furnished us a supply without resort to these means, and we have now not only the Spanish merino in great numbers, much improved by our care, but the highly improved stock of Saxony more than doubling the value of the original Spaniard: the same remark applies to the improvement of the Merino as to all other animals, the quality and uniformity of the fleece should be the sole object in the first instance, and never sacrificed to any other. The general antipathy to mutton as an article of food in our country, is the only serious obstacle to a very extensive propagation of the various kinds of sheep, which would otherwise soon enable the United States to supply wool, and especially fine wool, cheaper than any other country. The Merino is the best mutton I have ever tasted, and a more general supply of *good mutton* will no doubt in time overcome this dislike; and if the politicians would let our flocks alone they will in due time work their way into permanent profit and favor, not to be disturbed by the fluctuations of false excitement or reacting depression.

Our swine exhibit the marks of care and skill in breeding; I have no where met with a more thrifty or profitable race than is to be found in this and the neighboring counties, but we are not to suppose them incapable of further improvement: to this there is no limit.

In conclusion, permit me to remark that while we are harmoniously, and I trust successfully engaged, full of emulation, untainted with envy, uniting our endeavors in advancing the interests of agriculture, we are not only developing additional resources for the comfort and happiness of our race, in future ages: but, by elevating the character and enlarging the circle of our professional community, we are preparing the means for the extension and perpetuation of the blessings of civil liberty. Agricultural communities are the only safe reliance as depositories for that virtue and independence of mind which *unawed by power, unseduced by venal allurements,* and untainted by faction, can preserve the just equilibrium necessary to support order, protect liberty, and maintain and perpetuate the moral energies of free institutions among mankind.

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[*] Breeders of the race-horse can verify this remark; they require *bottom,* speed and strength to be united in the same animal; these qualities are sometimes combined by the sports of nature; but so to amalgamate them in a stock that the progeny may not partake of some material defects of their remote ancestors is most difficult to accomplish.

(From the Winchester Virginian.)

EXHIBITION OF SHORT HORNS.

May 1830.

The exhibition on Monday last of Mr. R. K. Meade's short horned bull (Edward,) and one of his calves (Powell,) attracted a crowd of spectators who were highly gratified with the appearance of these extraordinary animals. We heard but one opinion expressed by those who examined them, and that was that they were decidedly superior to any animals of the kind which have been hitherto introduced among us. They were accurately weighed at the hay scales, and we have been obligingly furnished by the weigh-master with a statement of their respective weights, by which it appears that *Edward,* now rising three years old, weighed 1850 lbs.; and *Powell,* one of Edward's calves, twelve months and one week old, weighed 1045 lbs.

Edward was purchased by a company of gentlemen, in this county, of whom Mr. Meade was one, of Mr. John Hare Powell of Philadelphia, in the spring of 1828, for the sum of $250. In addition to which these gentlemen have been at considerable expense in bringing him on and rearing him, for which we trust they will now reap ample remuneration. Such of our farmers as properly appreciate this valuable species of stock should not permit so favourable an opportunity as that now presented of improving their breed to escape them.

HORTICULTURE.

(From Prince's Treatise on the Vine.)

NOMENCLATURE OF GRAPES.

OWENS'S WHITE.

For this variety I am indebted to William Owens, Esq. of Virginia, who has favoured me with the following remarks in regard to it: the berries are very large, weighing from one hundred and twenty to one hundred and thirty grains each. It is a variety of the fox, and possesses a pleasant degree of the muskiness common to that class of grape. Mr. Owens states, that he has discovered a number of interesting wild varieties differing in size, flavour, and colour, some inclining to green, others of a yellowish white, and one of a purple colour, which is of good flavour and of very unusual size, the berries weighing from one hundred and fifty to one hundred and sixty-five grains each.

Another is an extremely rich black grape, flattened at the ends, and about one inch through its longest diameter, the skin thin, pulp a very deep rich purple, which upon the removal of the skin displays the granulated sparkling appearance that some water-melons exhibit when cut. Another is a large red grape, skin very thin, and when separated from the fruit, of a beautiful clear red, pulp solid, but sweet and musky. Another called white, but with some berries approaching a light amber, owing perhaps to greater maturity. Another, which is a variety of the summer grape, has bunches large and open, the berries of a small size, with a black polished surface, they are of exquisite flavour, and accompanied with a perfume that always reminds one of the pleasant odour exhaled by the woods in the spring when the flowers are in bloom. Mr. O. made in the summer of 1829, about nine hundred and fifty gallons of wine from native grapes, and computes the number of wild varieties of the fox-grape that he has discovered to exceed twenty, and of the summer or fall grape to exceed thirty, many of the latter differing very widely in flavour and complexion, and those of a purple or black colour in some instances covered with a blue mist or bloom, the largest measuring about half an inch in diameter. He has also met with several varieties of the winter or frost grape, and deems that some of the varieties he has discovered may without doubt be hybrids between the respective species.

WILLIS'S FREDONIA.

Jersey grape. *Gurnsey grape.*

For this vine I am indebted to John Willis, Esq. of Maryland, so well known as a most skilful and intelligent amateur of horticulture, and to the title adopted I have attached his cognomen. A very particular description of the famous vine in Mr. W's garden was published in the American Farmer the past year. He states to me that it is now of six years growth, and spreads its branches to the extent of one hundred and twenty feet, the diameter of the main stem being only eight inches and three-eighths, and that he calculates the produce the present season will be more than ten thousand bunches. The vine is not troubled with insects, the fruit is black and pleasant for the table. Mr. W. has not been able satisfactorily to trace this variety to its original locality.

WILLIS'S LARGE BLACK.

Great black Muscadine.

I received this variety from the same source as the preceding one. Mr. W. remarks, that its fruit is particularly valuable for preserving, that when used for such purpose it loses the musky or fox flavour, and becomes delicious. The berries, he states, are very large, often measuring three inches and one-fourth or more in circumference. The vine was brought originally from Roanoke, and represented to be of exceedingly vigorous growth. The third year sixteen shoots were allowed to grow, and when measured in the autumn from motives of curiosity, the vine was found to have run in one season one hundred and ten yards. According to a traditional account of the southern Indians, this vine and the white Scuppernong have been in bearing among them for more than five hundred years; but notwithstanding this, some of the white inhabitants attempt to trace the introduction of these natural products of the soil to Sir Walter Raleigh and Sir Richard Willis.

ADDITIONAL INDIGENOUS VINES.

I have also received from different quarters, vines of a number of varieties said to be native, but of whose merits and qualities, sufficient information is not possessed at present to give more than a list of their names. Among these are the following:—Penniman's, Thompson's, Large Blue, Large Fox of different varieties, Early White of two varieties, Sloe and native Muscadine of several varieties, &c. These have all been planted as specimen vines in my experimental vineyard.

VARIETIES FROM SEED.

In the summer of 1828, I published a circular soliciting from persons residing in the various sections of our country, the seeds of such *native* varieties of the vine as were found in their respective vicinities. I received from all quarters of the Union, considerable parcels of seeds, in some cases with short descriptions, and in others without any. These were mostly, in accordance with my requests transmitted by mail, an expense I have cheerfully submitted to as well in regard to these, as to seeds of other interesting native productions. From the various sources referred to, I have reared a numerous progeny of vines, of the most interesting of which I here annex a list, designating at the same time the state from which they were received, together with the titles and descriptions which were attached to them by the contributors.

FROM MISSOURI.

Fall grape, No. 1—being the largest and finest of its kind.
Do. No. 2—secondary in regard to the size of the fruit.
Do. No. 3—smallest fruit.
Black winter grape. White grape.

From a different source.

Black wild summer grape, ripe in October.
Do. winter do. ripe in November.

From another source.

Lowland grape, grows naturally in low ground and has very peculiar foliage.

The first three of the eight preceding varieties from Missouri, are very productive, and Dr. Millington has made eight barrels of wine from vines of those varieties in a single season.

FROM SOUTH CAROLINA.

River swamp grape. Do. very acid.

Sand hill grape, much larger than the preceding sort, and not so sour.

Do. a different variety. Bullace grape.

Garden grape,
Do. large dark purple. } two native varieties introduced to garden culture on account of their quality.

FROM VIRGINIA.

Monstrous fox grape.
Maryland purple do.
Large sloe grape.
Beaverdam do.

FROM TENNESSEE.

Winter grape.
Purple native grape.
White do.
Coon grape.
Blue do.

FROM OHIO.

Hill grape of the Scioto.

FROM ILLINOIS.

Prolific grape, from the border of the prairies, two varieties.

In addition to the plants reared from seeds of the various preceding varieties, I have since taken great pains to procure scions from the *original* vines, so as to perpetuate the identical kinds that had attracted attention in their natural state, and I have succeeded in transferring nearly the whole of these scattered productions of our country to my experimental grounds, where they will without doubt, thrive and flourish, living mementoes of the horticultural riches of our country.

I have also reared a great variety of seedlings from the cultivated kinds, both native and exotic; these have not yet fruited, but when of sufficient age may be expected to produce a great diversity. Among them are a number from the Isabella, a part of which are from the seeds impregnated by the Bland and the Meunier; others from the Alexander, Bland, Meunier, White Rochelle, White and Red Malaga, White and Black Scuppernong, Nazro, Scott's Troy vine, and from Gimbrede's Fox grapes of the sorts exhibited to the Horticultural Society.

GENERAL REMARKS.

I have now completed the descriptive list of American vines, as far as could be done consistently with the present state of knowledge on the subject, and the precision and accuracy required. In doing this, no vine has been knowingly described under different heads or distinct titles; but on the contrary, all the claims to a separate origin and to peculiarity of character, have been examined doubtingly, from a desire to curtail the nomenclature, and to restrain it within correct bounds. It is, however, very possible, and even probable, that future examinations of those kinds but recently received from such numerous sources in the wide spread regions of our land, and which have in most instances never been submitted to a comparison with each other, may by a critical investigation of the particular properties of each, prove many which are now deemed distinct varieties, to be so similar as to identify them with each other, and consequently to render it necessary and proper to unite them under the same heads.

With regard to the synonymæ, the greatest perspicuity has been exercised, and that part has been rendered as perfect as the circumstances would admit; and although future experience may considerably modify that portion of the nomenclature, the arrangement so far as at present perfected, will I think add greatly to the diffusion of a correct knowledge of the respective varieties, and to the identity of such as have been hitherto considered distinct from each other.

RURAL ECONOMY.

STEAM AND HORSE-MILLS.

Shelby Co. Kentucky, July 21, 1830.

J. S. Skinner, Esq.

Observing an inquiry from a southern gentleman, upon the subject of steam and horse-mills, in the 16th No. of the American Farmer, and having lived for the last thirty years where we have our corn ground from four to six months in the year upon horse-mills, I have thought it probable some information might be given which might be useful upon that subject. In Kentucky, mills propelled by horses or oxen are most common, steam-mills being too expensive for persons possessing only the capital of ordinary farmers; those in most common use with us are double geared; the large wheel about fourteen feet in diameter, and, if made of the best materials, and covered with a shingle roof, the whole expense would be about $300. Others are constructed on various plans, which answer the purpose very well for about $100; such a mill as spoken of at $300, with four horses or oxen, will grind from thirty to forty bushels per day. Should a more minute description be necessary, or any other light which I can throw upon the subject, I would take a pleasure in communicating it. Yours, respectfully,

A Subscriber.

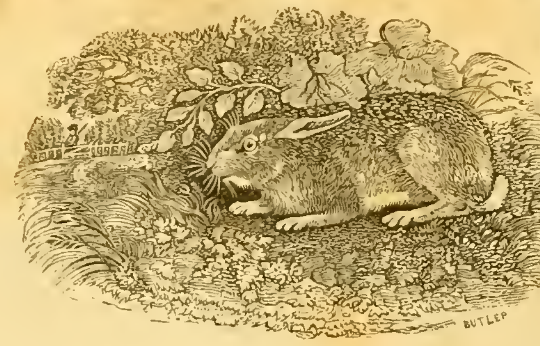
N. B. A mill intended exclusively for oxen should be multiplied more highly than one intended for horses, as their natural gait is more slow; the calculation is that the stones make 120 revolutions in a minute.

MISCELLANEOUS.

IMPROVEMENT IN TANNING.

Mr. S. Hulbut, of Oswego, in connexion with Messrs. Hunt and Shrove, have discovered a method of tanning hides, which is supposed to be an important improvement upon the process, that has usually been pursued. They have thrown aside the use of lime altogether, and instead, have adopted the method from experiment, of extending them, after a thorough saturation, in a large deep vat, about two inches apart, and excluding the atmosphere entirely from them. In this situation, the damp air has the same effects upon the hides as lime, without decomposing or weakening its texture. They are taken from here and placed immediately in bark. It is stated that the leather thus tanned, is much stronger, and presents a more fine and even surface, than that manufactured in the ordinary way.—*Rochester Courier.*

Never court the favour of the rich by flattering either their vanity or their vices.



(From the American Turf Register and Sporting Magazine, Vol. 1, No. 12.)

NATURAL HISTORY.

In our preceding number we gave the character of the order to which the animal we are about to describe belongs. We have now only to state its family and generic distinctions.

Family. Leporini. Cutting teeth beveled, the upper double; i. e. each having a smaller subsidiary one behind; from five to six grinders on each side in both jaws, and formed of plates as if soldered; tail short, or wanting; the hinder a little longer than the fore extremities; a very large cœcum, furnished through its external length with a spiral membrane.

Genus. Lepus. The hind considerably longer than the fore legs; ears long; tail short; clavicles weak, and almost cartilaginous; five toes on the fore feet, four on the hind. The *species* we mean to describe is the

AMERICAN HARE—(*Lepus Americanus*)

Which is very commonly, but very improperly called *rabbit*. Indeed the hare and rabbit so much resemble each other, that we do not wonder that mere empirical observers should have been puzzled in assigning distinguishing marks of difference between them. There are many circumstances in which they differ, in reference to their reproductive system for example, which are sufficient to constitute them of very distinct species. Thus, the nest of the hare is open, constructed without care, and destitute of a lining of fur. The nest of a rabbit is concealed in a hole of the earth, constructed of dried plants, and lined with fur, which is pulled from its own body. The young of the hare, at birth, have their eyes and ears perfect, their legs in a condition for running, and their bodies covered with fur. The young of the rabbit at birth, have their eyes and ears closed, are unable to travel, and are naked. The maternal duties of the hare are few in number, and consist in licking the young dry at first, and supplying them regularly with food. Those of the rabbit are more numerous, and consist of the additional duty of keeping the young in a state of suitable cleanliness and warmth. "The circumstances attending the birth of a hare, are analogous," says Dr. Fleming, "to those of a horse, while those of a rabbit more nearly resemble the fox."

The American hare is found throughout this country to as far north as the vicinity of Carlton-house, in the Hudson's bay country. In summer, the pelage is dark brown on the upper part of the head, a lighter brown on the sides, and of an ash-colour below. The ears are wide and edged with white, tipped with brown, and very dark on their back parts; their sides approach to an ash-colour. The inside of the neck is slightly ferruginous; the belly and the tail is small, dark above, and white below, having the inferior surface turned up. The hind legs are covered with more white than dark hairs, and both fore and hind feet have sharp pointed, narrow, and nearly straight nails. In winter, the pelage is nearly twice the length of what it is in summer, and is altogether, or very nearly white. The weight of the animal is about seven pounds. It is about fourteen inches in length. The hind legs are ten inches long, by which circumstance it is most strongly distinguished, in external appearance, from the common rabbit of Europe.

The American hare never burrows in the ground like the common European rabbit. But in its movements it closely resembles the common hare of Europe, bounding along with great celerity, and, when pursued, resorts to the artifices of doubling so well known to be used by the latter animal. It is not hunted, however, in this country as in Europe, but is generally roused by a dog, and shot, or is caught in various snares or traps.

The kind provisions of nature for the preservation of the leporine race, are many and wonderful, and afford a striking proof, among thousands which might be produced, of that system of compensations, that balancing of perfections and defects, that equalizing of the quantity of life and destruction, on which the continued existence of the respective tribes of animals depends. If the hare is, on the one hand, exposed to the attacks of almost every beast of prey, it is, on the other, abundantly fruitful. The American hare breeds several times during the year, and in the southern states even during the winter months, having from two to four or six at a litter. If often pursued, the hare is also furnished with various sources of evasion and escape. Its ears are so contrived, as to convey even remote sounds from behind: the eyes are so situated as to enable it, when at rest on its seat, to observe without difficulty, and even without much motion of the head, a whole circle; and, though it sees imperfectly in a straight line forwards, it can direct its vision to whatever threatens it in the way of pursuit; and the eyes are never wholly closed during sleep.—From the extraordinary muscularity of its limbs, it can sustain the fleetness of its course for a considerable time, while the greater length of the hinder legs gives it such a decided advantage in ascending, that, when started, it always makes to the rising ground. Its habitual timidity, and perpetual apprehension of danger preserve it lean, and in a condition the best adapted to profit by that speed which forms its security. The thick hairy protection of its feet also gives it, in dry or frosty weather, an advantage over the dog which pursues it. Its near approach in colour to the soil often conceals it from the sight of man, and predacious animals; and in northern countries, its fur becoming white, as we said before, the animal can scarcely be distinguished from the surrounding snow. As if conscious of its resemblance to the earth on which it treads, it has often been known when closely pursued by the hounds, to squat behind a clod, and suffer the dogs to run over it, which they no sooner do, than it instantly takes a contrary direction, and thus deceives them. As it possesses the sense of smell in a pre-eminent degree, it is often aware of the presence of an enemy before it can ascertain its danger by the sight. The doublings of its course are familiar to every European sportsman; and though in some respects its sagacity seems to be at fault, especially in exhausting its strength in the early part of the chase, and in returning to its resting place by the same paths, it has been frequently observed to have recourse to stratagems, which, in the human being, would bespeak not only presence of mind, but a prompt and practical application of the reasoning faculties.

During the day time the hare remains crouched within its form, which is a mere space of the size of the animal, upon the surface of the ground, cleared of grass, and sheltered by some over-reaching plant; or else its habitation is in the hollowed trunk of a tree, or under a collection of stones. It is commonly at the earliest dawn, while the dew-drops still glitter on the herbage, or when the fresh verdure is concealed beneath a mantle of glistening frost, says Dr. Godman, that the timorous hare ventures forth in quest of food, or courses undisturbed over the plains. Occasionally during the day, in retired and little frequented parts of the country, an individual is seen to scud from the path, where it has been basking in the sun; but the best time for studying the habits of the animal is during moon-light nights, when the hare is to be seen sporting with its companions in unrestrained gambols, frisking with delighted eagerness around its mate, or busily engaged in cropping its food. On such occasions, the turnip and cabbage fields suffer severely, where these animals are numerous, though in general they are not productive of serious injury. However, when food is scarce they do much mischief to the farmers, by destroying the bark on the young trees in the nurseries, and by cutting valuable plants.

Although not very susceptible of strong attachment, the hare is naturally of a gentle disposition, and, when taken young, may be raised without much difficulty. Shy and timid as it undoubtedly is in its native haunts, yet, when domesticated it often assumes a forward and even petulant demeanour. In respect of temper and talent, however, a very marked diversity obtains among different individuals, a fact not sufficiently attended to in the moral history of animals without excepting mankind, and which has been fairly exemplified by Cowper, in his account of three hares which he watched himself.

The flesh of the American hare, though of a dark colour, is much esteemed as an article of food. During the summer season they are lean and tough, and in many situations they are infested by a species of œstrus, which lays its eggs in their skins, producing worms of considerable size. But in the autumnal season, and especially after the commencement of the frost, when the wild berries are ripe, they become very fat, and are a delicious article of food. In the north, during winter, they feed on twigs and buds of the pine and fur, and are fit for the table throughout the season. The Indians eat the contents of their stomachs, notwithstanding the food is such as we have just mentioned. The flesh of the hare was reckoned a great delicacy among the Romans, and, in Martial's estimation was superior to that of all other quadrupeds. From an allusion in the eighth satire of his second book, we may infer that Horace regarded the *wing* as the part in highest request among his countryman.

> Et leporum avulsos, ut multô suaviûs, armos,
> Quām si cum lumbis quis edit.
>
> ——— the *wings* of hares, for so, it seems
> No man of luxury the back esteems.

Though no animal can appear less formidable or repulsive to a human being than a timid leveret, it is somewhat remarkable that the brave Duc D'Epernon, from one of those constitutional antipathies for which it is so difficult to account, always fainted at the sight of one.

There are probably *four* species, belonging to the genus Lepus, which are natives of North America, viz.

1. *The American hare.* Lepus Americanus; L. Godman's Am. Nat. Hist. vol. 2. page 157.
2. *The Polar hare,* L. Glacialis; Sabin. Godman, page 163.
3. *The Virginia hare,* L. Virginianus; Harlan. Faun. Americ. page 196 and 310.
4. *The Varying hare,* L. Variabillis; Pallas.

SINGULAR PHENOMENON.

Before the Artesian wells were in use, the inhabitants of Thiari, in Savoy, wishing to procure water, dug, in 1825, a well in that commune. They could not find out a sufficiently abundant source for their wants; but in default of water, this well, by a curious singularity, exhibits all the variations of the atmosphere, and almost obviates the necessity of a barometer to indicate the weather. If the vicinity of Thiari is menaced with hail or snow, an impetuous wind rushes from the well like a torrent, which carries with it stones and pieces of rock, and the wind lasts as long as the snow or hail are likely to fall, and indicates the quantity. When the wind rushes from the well suddenly, in a single gush, and with violence, it indicates an approaching storm. When the weather is fine, and the north wind dominates, the well is tranquil, and the air is in a state of stagnation. Several naturalists, attracted by these marvellous effects, have sought to explain the cause of them; and the academical bodies, and the men of science of Turin, Chamberry, and Grenoble, have visited the spot, and have, by various experiments, established the fact that the well possesses the properties here attributed to it.—*London pa.*

THE FARMER.

BALTIMORE, FRIDAY, AUGUST 13, 1830.

☞ LAFAYETTE ON HIS FARM.—Every thing connected with the patriarch of La Grange is interesting to the American people, for whose independence he came, when a stripling, to fight by the side of Washington; whose confidence he always enjoyed, and whose virtues he has as constantly emulated. Hence we are induced to offer the following extract from a familiar letter written by an American lady in France, to her husband in America, giving some account of his farm, but without any idea of its being published.

Such details sometimes serve as well as more public acts and duties, to illustrate the individual man, and to some of our readers they may prove more interesting than political speculations.

La Grange, May 29, 1830.

The weather has been so wet since I have been here that yesterday was the first day I could get out The dear old General took me entirely through his farm-yard, you can have no idea of the perfect manner in which his cattle are taken care of—the comfortable houses and beds; the cleanliness and regularity of feeding are astonishing. He has here a flock of 1200 of the finest Merino sheep, all of which I saw turned out, attended by two shepherds and four dogs. The cows are much larger than ours, generally, and are treated more like human beings than brutes. They are turned out in the morning and brought in in the heat of the day, fed, suffered to rest a certain time, and again turned out until sunset, when they are put up for the night. In one of the stables there are twenty-two cows, and two bulls. The veal they have here is the whitest, fattest and nicest I ever saw. The calves are attended by women, and fattened by a peculiar process—they give them eggs, four a day to each calf, which are put down their throats whole; this, with their allowance of milk, I am told fattens them in a very short time. Each cow is confined with a halter of sufficient length to let them lie at their ease; their hides are nicer and cleaner than many of our gentlemen's carriage horses. In another stable were thirteen cows, amongst which were those of the Devon breed, given him by Mr. Patterson of Baltimore, also nine half grown calves, all as he told me were of the same stock. The horses in the general's stables are attended to with equal care. There were in the stables fifteen horses, besides his carriage horses, and three donkeys—one large one for farm use, the other two for the young ladies and children to ride; I assure you they go quite pleasantly, as yesterday I rode one all round the park, and to the lake. The piggery is the most complete you can imagine, containing a great number of hogs of all sizes, ages and breeds, but the one you gave the general is the largest ever seen, and is much more esteemed than any of the others. The general relates with much apparent pleasure, that an English farmer of great wealth and knowledge, on seeing this hog, said, well sir, you may boast of having the finest boar that was ever sent from England, and would scarcely believe him, when with pride he told him, it came from the United States, and not from England. The farm-yard is a very large square, with buildings extending quite round it. The house for the sheep occupies an entire side of the square; the buildings are all of stone, and built as if to endure forever. The general has a great variety of birds, poultry, and American deer; all provided with the nicest possible accommodations. Were you here I am sure you might designate many things that would be valuable for our farmers to know. They make cheese here, as well as the finest butter I ever tasted. The dairy is admirably arranged; indeed the whole is a pattern farm—the general appears to take great pleasure in it; he walks as nearly over it every morning as he can. Since his fall on the ice he cannot ride on horse back, which is a great pity, as he was very fond of that exercise, and was in the habit of riding entirely over his farm when the weather admitted. You can have no idea of the benevolence of this good old man. There are at least twenty poor families who are daily supplied from La Grange with every thing that can make them comfortable, besides I know not how many others that are provided for. * * * * * * *

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I am quite surprised at the freedom with which all in France speak of the king, his ministers, and of public affairs. I had supposed that in a monarchy, people were afraid to open their mouths. This country appears to be on the eve of some crisis. The king * * * * * * * *

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do not imagine that I am going to turn politician—you know I hate politicks, but I thought you would like to hear a little of the current news.

For a description of the Lafayette family I refer you to Mr. M———. The more I see of them, the more I admire and love them. * * * *

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Just before dinner on the day I wrote you last, we heard of a fete at one of the villages a few miles off, you already know that each village in France has its annual fete, some oftener—whilst at dinner the general's travelling carriage was prepared for us, and the four young ladies, the four boys, and myself, set out for the village, where we arrived just before sunset, and found all the peasants assembled, and as happy as possible. All were dancing, old and young, some I am sure old enough to be great grandmothers. They had chosen an odd place for their amusement, along side the church and burying ground; it was nevertheless a pleasant spectacle to see so many human beings enjoying a day of innocent amusement, apparently so happy.

Yesterday the first of June, the ladies were going to pay a visit in the neighbourhood, and the dear general proposed that the carriage should be got ready immediately, and that he would himself take me to shew me some improvements on his farm, before the time for paying the visit. His grand-daughters and I accompanied him, and had a most agreeable ride—he showed me a meadow in beautiful order, that had been but an unproductive swamp. The water he had collected into two very large ponds or small lakes, supplied by two copious springs, which are finally emptied into one large rivulet. In each of these ponds he has left three or four small islands, with beautiful clumps of trees—on their margin are picturesque and agreeable walks. He then took me to show me his ice-house, which is made after the cheap and plain American plan—he says that in this country they make their ice-houses very expensively, and that they do not keep the ice nearly so well as ours.

* * * * * * * * *

Thursday—This morning we have been to visit poor Somerville's tomb—it is very neat and appropriate—I will describe it particularly when we meet—we also visited the two orphan or poor schools, which are supported on the estate by the Lafayette family—one for boys, the other for girls. The children and teachers all appeared delighted at seeing Mr. G. W. Lafayette: as soon as we were seated, one of the little girls stood up and repeated some very affecting French lines, thanking him for his benevolence in rescuing them from want and wretchedness; he kissed the little girl on both cheeks, when half a dozen little ones, as if jealous, came up and held their faces for the same honour. You cannot easily believe how much the whole family is beloved, and how much they do for the poor—their situation in this respect is enviable.

☞ Market for Cocoons.—The United States Gazette enables us to state, that Mr. Garesche of Philadelphia will purchase any quantity of good cocoons. The price will vary from 40 to 50 cents a pound—or from $2.50 to $3.00 a bushel.

☞ Drought in the South.—A correspondent at Scotland Neck, N. C. writes us under date of August 3, that "there has been an unusually long drought in this part of the country. We cannot make near half crops of corn—we may make fully a half crop or more of cotton." The Petersburg Intelligencer just received has the following remarks:—

THE CROPS.

We are sorry to understand generally from the south, that the prospect of an abundant crop of corn, which in the month of June flattered the hopes of the farmer, has been entirely destroyed by the drought of July; and that in many sections, so far from having grain to sell, serious apprehensions are felt, that numbers will suffer from the want of bread. It is true, that the crop of wheat was large and uncommonly good this year; but it should be remembered that this is a kind of grain but partially cultivated in the south; the inhabitants depending almost entirely upon corn for the subsistence of their families and their stock—hence an apprehended failure of the latter carries gloom and dismay into both the mansion and the cottage. A pretty copious rain which came this day week, we perceive extended as far as Raleigh, N. C. and may be beneficial to a portion of the very early, and some of the late corn; but while here and there a field may revive and yet turn out well, hundreds are so far gone that their produce will be consigned not to the crib, but cut down for the stercorary. Our information enables us to add, that the growing *cotton* has suffered less than the corn; and at least an average crop may be anticipated.—*Pet. Intel.*

Moon's Mount, Caroline Co., (Virg.) Augst. 2, 1830.

J. S. Skinner, Esq.

It is ever unpleasant to be the harbinger of bad titings, but when a benefit may result from its communication, it should not be withheld.

To the farmer, correct information enables him to meet emergencies, and avoid, or at least partially obviate evils consequent upon the vicissitude of seasons which are beyond his control.

The long prevailing drought which has parched the fields and blighted the hopes of the Virginia corn planter, from the bay to the mountains, and which seems from the public notice in the southern papers to extend to Georgia, is one of those serious visitations of an afflicting providence, which while it is calculated to humble the heart of thankless man, should admonish him to resort to every expedient for mitigating the impending evil.

I believe it may be asserted that since the first of June, with a few partial exceptions, from the coast to the Blue Ridge, and the North Carolina line to the Potomac, there has not been rain enough to present a good season for setting out cabbage plants. Our spring was moist, and hence our fields were richly clothed in grass: and where sown in clover that valuable grass was luxuriant. The hay crop, as well as small grain crop, is fortunately better than common—the wheat superior in quality to that of many years; as an example, mine weighs from 63 to 65 pounds to the bushel. But the great staff of life for man and beast in lower Virginia, and the southern states generally, is Indian corn; and the curtailment of that a full half, must raise the price immoderately another year, and produce much stint, and cause distress among the poor. To mitigate the evil, I would suggest, the expediency of sowing the turnip in abundance, which can be raised in great quantities to the acre by manuring and cultivating in the drill—for feeding hogs and beeves with plentiful use of salt in wash made by the addition of a small proportion of meal and bran or shorts, there is no other substitute since the pumpkin crop is nearly as much injured as the corn; and it is too late to sow any thing else as a substitute for corn for fall, winter and spring feeding. From my experience, I am led to the conclusion that five hundred, or a thousand bushels even, can be raised of a good season, to the acre, by proper cultivation; and then they are kept for use, by the simplest means of preservation. I have tried many ways, and find the bulking them on the ground, in piles of about ten bushels, cutting the tops off, but not close, and covering the pile with a layer, with the top outwards, and then earth about eight or twelve inches thick, sharp at the top, with a trench around as a drain, preferable to all others—they keep firm and crisp, and in the spring will shoot out sprouts if left till then; I have never had one to rot that was put up in this cheap and simple way. It is my intention to prepare several acres to sow as soon as a good season comes, and as the full moon is near at hand, have hopes of the long wished for blessings—should that pass without a change of weather, and the remaining half of the moon pass over us in dust and heat, our sufferings must be dreadful. Our gardens are nearly destroyed, and without rain soon, must be hopeless; and the pastures withered, the stock must perish, both for want of food, and in many places for water. This is a gloomy picture, but without rain in a short time, will be no exaggeration. John Dickinson.

P. S. Since writing the above, a fine rain has fallen, but it is too late to retrieve the corn crop.

RUTA-BAGA.

J. S. Skinner, Esq. *Richmond, (Va.) Aug.* 2, 1830.

Sir,—I can boast of no experience in practical farming, and it would be preposterous for me to pretend to any information which would be useful or instructive to the agricultural portion of your subscribers. Yet it may not be amiss to mention, that some years past, when residing just without the city where I had a few acres of land for cultivation, I obtained from Mr. Cobbett who then resided upon Long Island, less than a tea spoonful of seed of the ruta-baga. I did not get them until August, and the weather being dry, most of the plants perished. Twelve or fifteen lived, and grew to the size of a large egg; these remained in the open ground during the whole winter, and afforded in the spring seed enough for the ground I had to sow. I sowed them the 15th of July in drills, 18 inches apart, on a very light loam, and the product was most abundant; the turnips large, firm and sweet, and much more nutritious than the other varieties. Some of this crop was taken up in November, set in a garden for seed, and remained as before in the open ground during the whole winter, and in March were perfectly sweet and sound. It is eaten, I observed, with avidity by horned cattle and hogs—is a fine table vegetable, and furnishes one of the earliest and most delicate spring sallads. Having cultivated at the same time a large crop of the white Norfolk turnip, I had a fair opportunity for comparison, and am satisfied that after one fair experiment, no good farmer would get out of the stock of the ruta-baga. For the reason before stated, I would not willingly appear as an agricultural correspondent, *under my own signature.* I merely take the liberty of stating a simple fact in regard to a valuable root, which, for aught I know, has been an hundred times stated to you before. I have recently purchased a small farm in the neighborhood, and am determined never to cultivate any other turnip than the ruta-baga if I can get the seed. Very respectfully, yours, &c.

W. H. R.

Latest Foreign News.—Death of the King.

By several arrivals at New York we have English dates to the 1st, and French to the 4th July. The king of England died on Saturday the 26th June, at 3 o'clock in the morning, and the duke of Clarence succeeded to the throne on the same day, under the title of William IV. These events had of course absorbed public attention in England, and excluded every thing of minor consideration from the public prints. There had been no changes in the ministry, nor were there any variations in the policy of the government expected.

The distresses in Ireland have led to some great and terrible riots. The particulars of one at Limerick are given at great length in the London Morning Herald of the 30th. The scarcity and consequent high price of potatoes was the immediate cause that led to it. A number of lives were lost, and much property destroyed.—The latter is estimated at £5,000. The military were ordered out, and at last succeeded in quelling the rioters.

An engagement had taken place between the French and Turks before Algiers. The positions of the former were attacked by the enemy, 40,000 strong, on the 19th of June. The French opposed but 25,000 fighting men, the rest being necessary to protect the landing of the materiel from the fleet. The Algerines made the attack with great impetuosity, and it is stated that the great utility of the precautionary measures of the chevaux de frize, were fully tested. They were found very effectual in defending the infantry from the hordes of Arab cavalry. The fight continued six hours, but European tactics and discipline at length prevailed. The loss is not stated, but it is supposed that it was very heavy especially among the artillery. The Arabs are better marksmen than the French. The ground was well calculated to give advantage to irregular troops. The Algerines had several mountain guns carried on camel's backs, which did great execution.

Up to the 24th of June, the French army continued to occupy the position it had taken after the engagement of the 19th, waiting for the cavalry and a fresh supply of provisions, which were delayed in their passage from the fleet to the encampment by adverse winds and calms. The loss of the 19th, had been ascertained to be 57 killed, and 473 wounded. On the morning of the 24th, the forces of the Algerines gave evidence that they had recovered from the panic of their first defeat. They marched up to attack the French showing a very extensive front, and giving promise of a hard fight, but they appear to have been thrown into confusion at the very onset, and to have turned and fled with great precipitation. They were pursued by the French for a distance of two leagues, when both armies halted, the Algerines on the brow of an eminence at the foot of which ran a ravine separating them from their enemy. The Algerines had no cannon.—They blew up a magazine which they were apprehensive would fall into the hands of the French. The number killed on the part of the French was small. But one officer was severely wounded, and that one was a son of the Count de Bourmont himself. The terms in which he mentions this fact do him credit—"only one officer has been dangerously wounded: it is the second of four sons who have followed me into Africa. I am in hopes that he will live to serve his king and country." Among the spoils of the victory of the 24th, were four thousand oxen. The army were supplied abundantly with water of an excellent quality. They continued in good health, but five cases of fever having occurred, and little other sickness.

Liverpool, July 1, 1830.

The transactions in our cotton market last week were extensive, and 29,480 bales of all descriptions found buyers, viz. 90 Sea Islands at 13 a 16d; 30 stained at 7½d; 8610 Upland—8595 at 6¼ a 7¼d; 15 at 5¾; 6490 Orleans at 6¼ a 8d; 4140 Alabama at 6 1-8 a 7¼; 6610 Brazil at 7¼ a 8¼; 410 Egyptian at 7¼ a 9d; 90 W. India at 7 5-8 a 8 7-8d; 3010 Surat at 4½ a 5 7-8d. Notwithstanding the weighty business done, and the improved feeling in regard to the article, the advance in prices was barely 1-8d per lb. and the demand was freely met by holders throughout the week, and the facility with which purchases were made was the principal cause of the operations being so heavy; about 3500 bales of the American were taken on speculation, and the import of the week was 9,100 bales; since the 1st January it amounted to 421,200, against 392,300 to same period last year; the increase from the United States being 51,000 bales.

The arrivals of cotton thus far this week have been considerable, and the markets less animated; there is however a disposition to purchase provided holders will submit to some reduction in prices; the sales for five days past are computed at 12,000 bales.

There continues to be a good demand for bonded wheat at rather higher prices, and last Friday (25th ulto.) being very wet, about 6000 to 7000 brls. of N. York and Philadelphia flour changed hands at 28s per brl.; but at present there is no inquiry, and the weather is fine, though somewhat variable; the stock of bonded flour in this port is put down at 135,000 brls. and of duty paid at 25,000 brls; large purchases of oats, &c. have been, and are making for Ireland, and Indian corn would command extreme prices for that quarter. Tobacco, the wants of several manufacturers have literally compelled them to purchase, but the article is 1-8d a ¼d lower, within the past month, and the sales in that period are 575 hhds. say 166 Virginia leaf and 282 stemmed; 59 Kentucky leaf and 68 stemmed; our present stock consists of 4800 hhds. against 7230, on the 1st July last year.

Prices.—Cotton, Upland, 6 1-8 a 7 3-8; Orleans, 6¼ a 7 3-8 a 8d; Alabama, 6 a 7d; Sea island, 12½ a 14 a 21d; Stained, 5 a 8½ a 10d; Ashes, New York Pot, 30s 0d a 32s 0d; Pearl, 34s 0d a 35s 6d; Montreal Pot, 30s 0d a 31s 6d; Pearl, 32s 6d a 34s 6d; Rice (in bond) 12s a 17; Flour (in bond) 26s a 27s; Indian Corn, 44s a 46s; Turpentine, 8s 9d a 11s 3d; Tar, 10s 6d a 12s 0d; Hides, salted, 4d a 4½d; Tobacco, Virginia leaf, 2d a 5d; Stemmed, 3d a 5d; Kentucky leaf, 2¼d a 4d; Stemmed, 3¼d a 4½d.

AVERAGES OF GRAIN.

	Wheat.	*Barley.*	*Oats.*
For the week....	66s. 5d.	31s. 1d.	26s. 6d.
" -6 "	65s. 8d.	31s. 4d.	26s 0d.
Duty.........	21s. 8d.	15s. 4d.	7s. 9d.

—On Flour 13s. 0½d. pr. brl.

Rice.—Continues more inquired after; the advance is 6d per cwt.

Wool.—There is a great want of Wool; about 900 bags are advertised for this week, which will establish prices.

LONDON, June 28.—*Corn Exchange.*—The arrivals of English wheat we had fresh in for the morning's market were not very large; but having a favorable change in the weather since Friday last, the mealing trade is heavy; the best samples support the prices of this day se'night; but the stands are not cleared of the middling and inferior qualities. Flour the same as last week. Barley is dull sale, and the last Monday's prices are scarcely maintained. Beans of both sorts, and Oats are taken off slowly at an abatement of 1s per quarter. In white and gray pease, or other articles, no variation.

LIVERPOOL, June 29.—*Corn Exchange.*—Since Tuesday last the arrivals of Grain have again been very small. This day's market was but thinly attended, but sales to a fair extent were made of wheat and oats, advance of about 2d a 3d per 70 lbs. on the former, and of ½d to 1d per 45 lbs. on the latter—several parcels of wheat, in bond, were taken on speculation at fully the prices quoted, and bonded oats were also in request; all other Grain participate a little in this improvement.

Prices Current in Boston, August 6.

Apples, best, bbl. .200 a 3.00. *Beans*, white, bushel 1.00 a 1.25. *Beef*, mess, bbl. 9.25 a 10.50; cargo No. 1, 9.00 a 9.50; No. 2, 6.50 a 6.70. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, 7. a .8; skimmed milk, 3. a .5. *Flour*, Baltimore Howard-st. 5.37 a 5.53; Genesee, 5.37 a 5.75; Rye, best, 3.50 a 3.87. *Grain*, Corn, bu. .46 a 55; Rye, .65 a .67; Barley .60 a .65; Oats .40 a 42. *Hogs'-Lard*, 1st sort, new, lb. 10.50 a 11. *Pork*, clear, bbl, 17 a 18; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 2.00 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .33 a. 38; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet ——; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .50 a 55; do. do unwashed, .30 a .35; do. three-fourths, washed, .42 *a* .45, do. half blood, .38 *a* .42; do. quarter, washed, .35 *a* .40; Native, washed .35 a .37; Pulled, Lambs', 1st sort, .— a 50; do. 2d sort, .38 a .42; do. Spinning, 1st sort, — a .40.

Prices Current in New York, August 7.

Bees-wax, yellow .20 a 22. *Cotton*, New Orleans .10½ a .13; Upland, .10 a .12; Alabama, .10 a .12½. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .17. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 5.00 a 5.12½; Canal 5.25 a 5.50; Balt. Howard st. —— a 5.25; Richmond city mills, —— country, —— a 4.87½; Alexand'a, 5 a 5.12½ Fredericksburg 4.87½ a —— Petersburg, 5.00 a ——; Rye Flour, 3.37½ a 3.50; Indian Meal, per bbl. 2.75 a —— per hd 13.00 a 14.00. *Grain*, Wheat, North, —— a ——; Vir. 1.00 a 1.07; Rye, North, 66 a 67; Corn, Yel. Nor. .58 a 60; Barley, — a — Oats, South and North, .33 a .40; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 10.00; prime a 6.25 a 6.75; cargo —— a —— Butter, N. York, 12½ a 15; shipping, 8 a 10; Lard, .10 a .11; Pork, mess bbl. 13.50 a 14.00; prime 9.75 a 10.00; cargo ——.

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☞ All orders promptly attended to.

ALMANAC.

1830. AUGUST.	SUN. Rises.		SUN. Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 14	5	10	6	50	13	40	1	15
Sunday,...... 15	5	11	6	49	13	38	2	10
Monday,..... 16	5	12	6	48	13	36	3	00
Tuesday,.... 17	5	13	6	47	13	34	4	08
Wednesday, 18	5	14	6	46	13	32	5	05
Thursday,... 19	5	15	6	45	13	30	sets.	
Friday,....... 20	5	16	6	44	13	28	8	10

New Moon—18th, 7h. 3m.—Morn.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKETS.—There is little or no variation in prices of flour and grain. The wagon price of Howard street flour continues at $5.25, though it may be considered dull. There have been no important sales from stores—a small sale was made at $5.31¼, but our quotation is considered the fair price. Beef on the hoof has declined, and is dull. A sale of a small lot was made on Tuesday at $4.75; but it is not expected that that price could now be obtained.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow-16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a, 28.00—St. Domingo, 8.00 a 15.00. The inspections of the week are 212 hhds Maryland, 22 hhds. Ohio; total 234 hhds.

FLOUR—best white wheat family, $5.75 *a* 6.25—super. Howard-street 5.37½—-city mills, 5.00 *a* ——Susquehanna, ——; CORN MEAL, bbl. 2.25——GRAIN; best red wheat, new 93 a 95;—best white do. new 1.00 a 1.03 common red 85 *a* 90——CORN, white, 46 *a* .— yellow .46 *a* .——RYE, .— *a* .46——OATS, .25 *a* .26 BEANS, .90 *a* 1.00-PEAS, .40 *a*. 50-CLOVER SEED, 3.75 *a* 4. TIMOTHY, 2.50 *a* ——ORCHARD GRASS, 1.50 *a* 1.75—Herd's, .75 *a* 1.25—Lucerne 30 *a* 37½ lb.—BARLEY,-FLAXSEED, 100--COTTON, Vir. 9½ *a* 10½--Lou. 11½ *a* 12½—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—WHISKEY, hhds. 1st p. .23½ *a* .24; in bbls 24½ *a* 25—WOOL, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $210 *a* ——; Country, dew-rotted, 5. c.— lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, —— No. 2, 5.00 *a* 5.56—No. 3, 3.50 *a* ——BACON, hams, Balt. cured, .9½ *a* .10—-Feathers, .— *a* 35—Plaster Paris, cargo price per ton, 4 00 *a* — ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 3.50 *a* 4.50—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

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AGRICULTURE.

A Report of the Committee of the Agricultural Society of Albemarle, on Farms, made to the Society at their Show and Fair, the 21st October, 1828.

We the undersigned committee acting under an order made by the Agricultural Society of Albemarle at their meeting in May last, and appointed to view the farms offered for premium, commenced our duty by viewing the farm of John H. Craven (one of the competitors) on the 20th of October. We found that part of his farm, called Pen Park, on the western side of the river in a rapid state of improvement; and, from the information of Mr. Craven, together with the knowledge of some of the committee as to the exhausted state of this part of his farm when he came into possession of it, are of opinion that it has been judiciously managed. But that part of his farm called Franklin, lying on the eastern side of the river has not improved so rapidly, which may have been caused by closer grazing or more frequent cultivation.

On this farm the negro cabins and other out houses are very good, and his farm pen shows, that there is great attention paid to his stock, which are of superior quality for this section of country. His horses, colts, hogs, &c. appear to have been well attended to.

We gave Mr. Craven and all the other competitors a copy of 22 questions marked A, with a request that they would answer them as explicitly and with as much accuracy as circumstances would admit, in their several reports. They have been answered by Mr. Craven in his report marked B.

On the next day we proceeded to view the farm (Ridgeway) formerly the property of Peter Minor, deceased. This farm, when Mr. M. came into possession of it was, we believe, the greater part in woods; consequently we suppose, fertile when cleared and comprehended likewise a large quantity of alluvial land, of fertility almost inexhaustible. We know of no farm for which nature has done so much. These circumstances, together with tolerably good management, have made it, perhaps, the most valuable farm within our knowledge.

There has been more stone fencing done on this farm than any of those exhibited for premium, and the out houses (viz.) negro cabins, tobacco houses, mill, barn, &c., have, we think, been judiciously arranged, and, are of superior quality. Most of them are built of stone. The work horses on this farm are of superior quality and well attended to. We gave Mrs. Minor also a copy of our questions marked A, to be answered in her report which we have received, marked C.*

We viewed Wm. H. Meriwether's farm next. This farm is in a state of improvement, and a very valuable plantation. But, from the circumstance of his cultivating large crops of tobacco, and appropriating the greater part of his manure to the cultivation of this crop, his farm has not improved so rapidly as it would otherwise have done. This crop has also prevented paying that attention to neatness, &c. which usually goes hand and hand with good farming. Our questions have also been answered by Wm. H. Meriwether, marked D.

We next, and lastly, viewed the farm of John Rogers. This farm, we think, has been most judiciously managed as it regards profit, neatness, improvement of the soil, arrangement of the fields; and in fact all his mangement denotes him as being a farmer of more than ordinary merit. We have therefore awarded to John Rogers the premium of $50 for the best cultivated farm.

We furnished Mr. Rogers also with a copy of our questions marked A, which he has answered in his report marked E. This report has entered less into detail and is less explicit than we could have wished, but he has made an apology to the society, and a promise to us, that he will at our next spring meeting give to the society an account in detail of his whole progress from the commencement of his operations to the present day.*

In awarding the 2d premium, the committee confess themselves to be somewhat at a loss. Here two farms come into comparison; one worn out and exhausted at the time the owner came into possession of it; the other but very recently cleared and but a very small portion of it that was ever worn out and possessing immense resources for fertilizing itself.

But Mr. Craven has, notwithstanding his limited resources of both money and manure, (two very important articles in making an exhausted farm rich,) not only improved his farm as it respects fertility of soil, but has added much to its appearance by the stoppage of innumerable gullies, and a considerable quantity of stone fencing put up in a very handsome manner.

Taking all the circumstances into consideration relative to these two farms, we have given Mr. Craven the preference, and, accordingly, award to John H. Craven the premium of $25 for the second best farm.

The above reports, together with the several reports of the competitors, are respectfully submitted to the society, and the committee beg they will take those reports as part of their own.

N. H. Lewis.
Jas. Clarke.
Jos. Harper.

A.

Question 1st. What is the number of acres in your tract of land, and what proportion of it is in cultivation?

2d. How many changes or fields have you, and what are their size?

3d. What is your rotation of crops?

4th. At what season of the year do you plant or sow the principal seeds; (viz.) corn, wheat, rye, oats and clover, and in what manner do you prepare the earth for them?

5th. What is your mode of cultivating the crop of corn?

6th. What quantity of wheat do you sow to the acre, and do you vary the quantity according to the quality of soil and season when seeded?

7th. What kind of wheat do you think most productive, and are you particular in selecting the best for seed?

8th. In what manner do you gather your small grain? with the cradle or sickle? and why do you prefer one over the other?

9th. What was the average product of your farm in wheat and corn to the acre when you commenced your operations on it, and what is it now?

10th. How many labourers do you work regularly on your farm, and of what description? and are you in the practice of employing day labourers?

11th. How many horses, mules, and oxen do you work? do you raise them; and what is their relative value on a farm?

12th. What do you feed your horses, mules and oxen with, and in what manner is it prepared for them?

13th. What kind of plough do you prefer, and what are your reasons for that preference?

14th. How many horned cattle do you keep on your farm and of what description? do you keep more than enough to supply the farm?

15. How many hogs and sheep do you keep, and what is your manner of feeding them?

16th. Do you pen your stock at night during summer? If so in what manner do you confine them?

17th. What quantity of manure is annually made on your farm? of what description? at what season carried out, and in what manner do you apply it?

18th. What is your opinion (founded on experience) of the efficacy of plaister, in what quantities, at what season of the year, and what kinds of crops it can be most profitably used on?

19th. What quantity of clover hay do you cure per annum? how much per acre? what your process in curing, and in what manner do you preserve it after it is cured?

20th. Do you gather your own clover seed from the farm? If you do in what manner?

21st. Have you been aided in the improvement of your farm by means of any other resources than those received from the farm exhibited for the premium?

22d. What is your mode of managing your negroes?

B.

In reply to the questions propounded by the Committee of Judges on farms, the undersigned answers as follows:

Question 1st. My tract of land contains 875 acres, of which I have about 500 acres under cultivation.

2d. Which is divided into ten fields of very unequal size as before explained to the committee in my report to them, of which ten fields I have separate and accurate plats.

3d. My rotation of crops is one fifth part or 100 acres in corn, two fifths or 200 acres sowed down in small grain, say wheat, rye and oats, of which the principal part is wheat.

4th. I prepare the soil for oats and corn as soon after finishing the seeding of my wheat crop, as I can, commencing about the 1st of November, and frequently finish the breaking up by the end of the year. I prefer sowing my crop of oats early in March, on the land flushed during the fall and winter, without any other preparation; and harrow them in with a heavy harrow, drawn either by three horses abreast, or three oxen, two under the yoke, and one with collar and hames. I think this the best way to work oxen either in the cart or harrow, as the single ox turns with much more ease than when encumbered with the yoke. I have sometimes been obliged to vary my mode of preparing the land for corn; for instance, it does not answer to flush a blue grass turf in the fall of the year, for it will grow back, and be worse to plough by the spring, than if it had not been broken during the fall and winter. I prefer breaking this kind of land the last of April, and harrowing it very well with a heavy harrow, the way it was ploughed, for fear of turning the sod back and planting the corn immediately, which I have always found best to be done with a shovel plough having a coulter on the point, with which I open the furrow, and then cover the corn with one of the same kind. As soon as the corn is large enough to bear the large harrow, I pass it over it backwards and forwards on the same row, following with small rakes, with four flat iron teeth, about three quarters of an inch wide, with a very small hoe or chissel in one end. With this I rake the turf and clods off the corn, and with the small hoe replant and chop up, whatever may be likely to choke the corn in the young state. I am now speaking only of the management of blue grass land. As soon as I can get over in this way, I follow with cultivators once or twice over, and finish with the shovel plough, with the coulter on the point, during or soon after harvest. My mode of cultivating corn on land not set with blue grass is somewhat different. Instead of using the cultivators after the large harrows, I run the naked coulter next to the corn on each side, and use the cultivator for the middle of the rows until the last time, when I generally plough the land all over, as close as the furrows can be laid. My preparation for wheat is very simple. I commence fallowing very soon after harvest, for two reasons: the first is, to let the clover seed ripen, by which the expense of purchasing seed is saved; the second is, to save the labor of re-fallowing, as I think one ploughing amply sufficient, if done at the proper time. I sow my rye from the 1st to the 20th

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* This report marked C, was by permission of the society, withdrawn.

* This report was withdrawn by Mr. Rogers; and in its stead, a fuller and more satisfactory one handed in.

September, at which time I commence sowing wheat, and consider from that time to the 20th of October, the prime season. I am sure it ought not to be sown sooner, and the crop is very uncertain if sown later. I sow all my clover seed the last of March or the first of April.

6th. I formerly sowed from one bushel to five pecks of wheat, to the acre of land, but now sow from five to six pecks to the acre, agreeably to the quality of the land, and the time of seeding, as also the condition in which the land is when seeded, sowing always thicker on rich land than on poor, as also on rough land than on smooth, where all the seed can vegetate, as also late in the season, to enable the wheat to make its way earlier in the spring, to escape the rust.

7th. I have for many years sowed the most of my crop, of the Lawler wheat, and (although not the most productive when the other kinds come in well) I have yet considered it the safest crop, from its capacity of resisting the fly more than any other. I am now sowing largely of the New York flint wheat, which has done well. I always select the best I have for seed, taking care to let it remain longer in the field, so as to become riper than the general crop.

8th. I have generally saved my grain with the cradle, where not too heavy, but should prefer reaping all heavy wheat with the sickle, it being much the neatest way to save all grain of this description.

9th. For several years I made not more than eight bushels of wheat to the acre; my crop of 1827, made nineteen bushels to the acre, and of the present year, 1828, the average has been but about fourteen bushels per acre; although, the prospect until within a very few days before harvest, was better than it had ever been before, but the crop was shortened by the hot and damp weather, and rust consequent thereon. I am unable to say what the increase of the corn crop of 1827 may have been, for my crop was so much injured by the cut worm, that it did not yield half a crop, and in consequence of the drought of the present year, 1828, I do not make half a crop.

10th. For the last two years I have worked 18 hands on this farm, viz: eleven men, six women, and one boy, with the addition of three watermen, (from harvest until we have tides for running the boats, say, two months generally.) I never employ any day laborers except in harvest, some few small chaps to assist in gathering wheat, whose wages do not amount in any year to more than thirty dollars.

11th. I work twelve horses and ten steers. Of the former, two are used as carriage horses, when occasion requires. All the horses except one have been raised by myself, and so have the oxen. I have no mules, and have never had any, and can therefore say nothing of their comparative value with horses and oxen. The horse answers for some purposes for which the ox does not so well; yet I am at a loss to decide which animal is the most valuable. The horse certainly costs much the most, either by purchasing or raising him; his keeping and feeding are also much more expensive. I think every farmer ought to raise all the horses and oxen he uses. I never feed my horses on corn unground; their principal food, is chopped rye and corn, and ship stuff, mixed with cut oats or rye straw. During the winter season, when my horses are not at constant work, they are fed with but little else than clover hay, on which alone, they will keep in good condition, if the hay be of good quality and cut before it gets too old. My oxen are fed with very little grain, even when at work; if they are plentifully fed with good hay or fodder, it is generally sufficient; but, when necessary to give any thing else, I have commonly used the offal from the mill, say, wheat bran mixed up with the chaff from wheat, which is a very valuable article used in that way.

13th. I decidedly prefer the old bar-share plough, with the cast iron mould-board, to any other ever used by me, both for the superior manner of its performance, and for its strength and durability; also, for the great ease, with which its work is performed, both for man and horse.

14th. I generally have from sixty to seventy head of horned cattle on this farm; say, from twenty to twenty-five milch cows, ten work steers, the balance, young cattle to keep up the stock. My stock of milch cows is larger than necessary for the use of the farm; but I have established a large dairy, from which I market the surplus butter; and besides, the milk is a most valuable article with a large family of young negroes, and with my present stock of milch cows, I have much more than they all can destroy during the summer season.

15th. I raise on this farm about sixty head of hogs for pork, annually; which, with the surplus sent from the mill, amounts to about one hundred head, which I have slaughtered annually, for several years past. I think every farmer ought to raise at least as much pork as is necessary for the consumption of his farm. I have no particular mode of feeding them; but keep them under good shelter during the winter, and give them as much corn as will keep them in a thriving state, until I can get the grain threshed out of one of the fields; I then endeavor to have them shifted from field to field, until they glean the whole, by which time they are frequently good pork: my plan is never to suffer them to fall away after this, but to feed them with something until the corn gets hard enough to complete the fattening, which I always endeavour to have done by the time the weather is cold enough to have them killed. I have eighty head of sheep on this farm—my mode of feeding them is very simple: indeed, some winters I feed them not at all. If they can run on an old clover field, they will winter very well, except when there is snow on the ground, at which time I give them nice blade fodder, with an ear of corn a piece per day. I also endeavor to sow a lot of rye forward, so as to turn the ewes upon it, when they begin to lamb, which is the best food they can have.

16th. I have always penned my cattle, summer and winter, and have manured more land in this way than any other, and with less labour; taking care always to keep the pen well littered with straw or leaves from the woods, both, before they are put in, and afterwards, when necessary.

17th. This question is answered in my communication to the judges.

18th. This question I consider fully answered also in my communication.

19th. This question being only answered in part, I will state that the quantity per annum is variant from fifty thousand pounds or less up to one hundred and fifty thousand, which I have saved this season. This quantity was cut from about fifty acres of land, which is three thousand pounds to the acre. My plan of curing is very simple and easy; I cut the clover and let it lie in the swarth one day: as soon as the dew is a little off the next morning, I rake it up in warrows, and let it lie in this situation until evening, when, if the day is a good one, it is sufficiently cured to put up in small shocks, in which situation it remains two days longer, when, I commence stacking or housing, as the case may be. I always haul as much to the stables as will be sufficient for my work horses and oxen. I have of late years put it up in large ricks, of fifty thousand pounds, which I have in some of my ricks this season, thatched with long rye straw so as to preserve it as completely as if it were in a house or barn. Indeed, it is much easier to put it up in this way, than to put it away in the house. The mode is, simply, to make a foundation of rails, straw, or any thing else that will keep it from the ground, and go on to stack it on ten or eleven feet high without paying any other attention than to keep the middle a little rounding, and to incline a little out, so as to give the stack or rick a little bulge to prevent the rains from driving in. I then commence the thatch, which any handy laborer can execute. The process is, to spread a layer of straight rye straw all around the stack, two or three inches thick, and sufficiently far out to form an eve with the butts out. I then go on to finish the stack or rick, by drawing in, and thatching every two feet, with the straw turned head out, after the first layer, and the straw kept as far out as it will lie on the stack, until brought to a sharp edge on the top, which is finished by tying faggots of rye straw, and straddling the top, which is confined down with a pole.

20th. I always save my own clover seed, principally by combing with hand combs, when the clover is not too much tangled for the combs to work. I have saved the seed this season from the whole of the land, from which, I mowed the one hundred and fifty thousand pounds of hay, and am sure that it cannot be less than fifty bushels, and may be one hundred.

21st. I consider this question fully answered in my communication to the judges.

22d. I have never considered my management of my slaves to be correct, having always been too much in the habit of scolding, as a substitute for correction; but I have little doubt that I have always got a reasonable quantity of work from them. My first care is to see that they are both well fed and clothed, and although it is greatly to be lamented, that as they are better treated, they are apt in the same proportion to behave worse, yet I have never felt ease or content, when knowing that they were in want of either, and have therefore provided them with comfortable houses, good clothing, and a plenty of food: this, I consider not only the duty, but the interest of every master. The most difficult part of their management, is the regulation of their discipline in such manner as to ensure their observance of it, without so far cowing or discouraging them, as to render them inactive in, or indifferent about their labour; for under such circumstances, the master or overseer will find much more difficulty in obtaining from them their due, and necessary portion of labor. I seldom require of my slaves to work in the night, and am careful that they always have labor to perform within doors, in bad weather. It is a great advantage to own slaves in families, in order that the husband and wife may be always together at home. The double consequence is, that they are more comfortable and happy, and much more valuable; and besides, of easier management. Under conviction of this truth, I have, by purchase, sale, and exchange, so managed, as to have but two slaves at home, who are not thus settled with their wives or husbands; and these two, are slaves which I have lately acquired, viz: only two years since.

I now submit to the committee, a detail of the nett proceeds of my farm from the crops of the two last years, viz., 1827 and 1828; the crop of the latter not having been sold, though the crop of wheat is all delivered at the mill. My crop of 1827, was as follows:—One thousand eight hundred and seventy bushels of Lawler and Mexican wheat, which brought me in Richmond, in flour, five dollars per barrel; say, three hundred and thirty-nine barrels at five dollars, delivered by my own hands, and thirty tons of plaister, brought in return loads. - - $1,695

My crop of tobacco sold for - -	730
I hauled from this farm this year, about five hundred loads of wood, with the teams and hands which made the crops, at one dollar and fifty cents per load.	750
	$3,175

To this, may be added, oats sold,	$120
Bacon and pork sold, -	120
Six hundred pounds of butter at 1s.	100
Ten veals, sold at five dollars each,	50
	$390

John H. Craven.

[☞ The communication of Mr. Craven, and some other answers to the questions will be published in a subsequent number of the Farmer.]

SUNFLOWER OIL.

York, Sulphur Springs, August 7th, 1830.

J. S. Skinner, Esq.

Dear Sir,—I have been located here this week, and only received your polite note last evening. And I pray you to command me in any services or good offices which I can render in return.

I may be too sanguine in believing that the sunflower oil, will be to a great extent a substitute for the olive, as well as the spermaceti, and where it can be grown as with us to an unlimited extent, its importance is incalculable. The improvement I have made produces a gallon from the bushel, three parts cold pressed, where the former modes only produced about a quart, and that not good. In the oil which I have made there may be observed a slight aromatic taste, which to me is pleasant, but I think by my machinery being more perfectly made, I can free it from that altogether. The improvement consists chiefly in separating the hull from the kernel, and mashing the kernel into a pulp. Any person having waterworks can have the whole machinery, including the press and privilege at about $300; this includes all expenses of making and putting up the works—the power requisite must be sufficient for a small pair of stones.

In a matter of this kind my feelings are in opposition to a monopoly of the right, but having works for making oil on my farm, I thought it would greatly enhance their value by having an exclusive right for my own neighborhood; to other places I will give it on very reasonable terms.

Under these circumstances I thought it right to apply for a patent; I have not thought of any price for the privilege as yet, but it shall be so low as not to stand in the way of any person using it.

From these hints you may be able to satisfy your correspondents, or if you please to refer them to me. I will give full information to any of them with pleasure. The ease with which the crop is grown, and its splendid appearance in a field, are strong recommendations if even its value should be far less than I anticipate.

I will take the liberty of giving you hints for publication as I progress, either in the cultivation or making the oil from time to time.

On my return, which will be on Monday, I will send to you by stage some bottles of the oil which you can try, either for burning or other uses.

With great regard, I am your obedient servant,

Chas. A. Barnitz.

COW-CABBAGE—AGAIN.

Essex County, Virginia, August 6th, 1830.

J. S. Skinner, Esq.

Dear Sir,—Having seen in some of your late papers several notices of what has been improperly called the "cow-cabbage," and being one of the persons who received seed from Dr. Mease, that zealous friend to all agricultural and horticultural improvement, I beg leave to offer my experience also. The term cow-cabbage is certainly a misnomer, for the plant does not discover, in any stage of its growth, the slightest tendency to cabbage, or form a head. It is a variety of colewort or kail; but was sent to me under the name of perennial cabbage, and represented as a plant which would live from two to four years. All the plants, however, in my garden, where they grew to the height of six feet some inches, are now entirely dead,—the seed having been put in the ground last May twelve months. They were destroyed, I think, by the cabbage louse and drought together; although some variegated kail within thirty feet of them and in similar soil, is still living. This, by the way, is a most beautiful, hardy, and valuable vegetable, surpassing many flowers in the striking combination of its various colours of white, green, pink, crimson, and yellow. I have never seen, nor heard of it any where, except in the excellent kitchen garden of Mr. Jesse Brown in the city of Washington. While speaking of the kail varieties, I beg leave to recommend that called the Siberian, as far preferable to all others for table use. In this climate it stands the winter without any covering whatever, and is fit for use as early in the spring as any of the cabbage or kail tribe; for it puts forth its young leaves as soon as ever the winter moderates. But to return to the cow-cabbage, in regard to which there is another mistake in supposing it to be unknown in this country, until its late introduction from France. In proof of this I refer to "Randolph's Culinary Gardener," a book published many years ago by one of the Randolph family in Virginia. The following remark will be found on the 29th page. "There is a perennial colewort, which will, in poor land, remain four years; but in rich, not above two, before they go to seed." All mine went to seed this spring, although only twelve months old. That they produce abundance of leaves is certain; but in my garden these were so much smaller than the leaves of any of the varieties of the large cabbage, which I have seen elsewhere,—such as the drum-head, the large English, and large Scotch, that I think it probable, either of the three last mentioned, would produce a greater weight from the same quantity of land. But be this as it may, I address you at present, with no other view than to supply more facts in regard to what seems to be generally thought a spick and span new thing in our country. One more remark and I have done. Without any wish whatever to discourage experiments with this supposed stranger to the United States, I can hardly think it probable that the perennial colewort, mentioned by Randolph, which I take to be the identical plant now called the "cow-cabbage," would have fallen entirely into disuse, had it been a valuable vegetable; for except this, we have every variety still among us, which Randolph mentions in his Gardener, and some not there described.

I remain, dear sir, yours with regard,

James M. Garnett.

HORTICULTURE.

DESTRUCTIVE INSECTS.

The Circular of the Pennsylvania Horticultural Society, soliciting information relative to the destruction of those insects, (especially the curculio,) which prey upon the fruit of the plum and other trees; has elicited numerous communications from gentlemen whose experience render their suggestions worthy of careful attention. The following is made public by order of the Society:—

Extract of a letter from S. Reynolds, Esq. addressed to David Landreth, Jr. Cor. Sec. Pennsylvania Horticultural Society, dated Florida, Montgomery Co. N. Y. June 10, 1830.

Dear Sir,—I have noticed the communication by a lady of N. Jersey, (addressed to your Society) upon the destruction of fruit by insects, and proposing a premium for the discovery of a method to prevent this great and increasing misfortune.

I can assure this lady, that although my stone fruit orchard is not so large as hers, I can most sincerely sympathize with her upon the occasion—and think I can point out a remedy amply sufficient to prevent all the evil, and that warranted by an experience, not of two, but of *ten* years.

Thirty years ago this insect, (the curculio,) of which she complains, was quite unknown in this part of the state, and plums and nectarines of every description flourished and ripened in abundance. I then planted many trees, they grew luxuriantly, the only misfortune we then experienced was from their overbearing—for years we feasted upon their bounties, and although we were informed that insects were destroying the stone fruit in New Jersey and other places at the south, we fondly imagined that ours would escape; soon, however, we found our mistake.

First, that insect which causes those knotty exerescences upon the plum and morello cherry, made their appearance about twenty years ago, and brought death to almost all the old trees in the country; then followed in its track a worse enemy, the curculio, and destroyed all the fruit upon the surviving trees.

Very early in life I planted in the highway a number of cherry trees; as soon as they grew to a sufficient size they bore abundantly, and annually produced fair and delicate fruit; pleased with this I sent to a distant nursery and obtained plants of the Mayduke. I planted them carefully in my garden and they grew rapidly; in a few years they were whitened with flowers, and for several returning seasons I feasted in anticipation upon their bounties, but when I came and sought fruit thereon I found none; the insects destroyed them all. Thus for many years sorely disappointed I cut them down in despair, as encumberers of the ground. I had also growing in the same enclosure two large imperial plum trees, one of them I removed by the same means, for they had never ripened ten plums, while the gage and damask plums, their near neighbours, always gave something of a crop; for it is true, as observed, "these insects choose the finest kind for themselves."

Thus circumstanced, about ten years ago I was informed of a remedy which instantly struck me as being what was much wanted, both cheap and effectual. I immediately enclosed a large yard adjoining my garden, turned into it my remaining imperial plum, and all the cherries that stood adjacent, and planted the whole with a variety of stone fruit, and had recourse to the preventive which had been recommended; the result of which has more than equalled any thing I had dared to hope for; the very first summer afterward my imperial plum tree gave me more than *three bushels* of fine, high flavoured fruit, and the cherries, which formerly were all knotty and full of worms, have ever since been fair and numerous.

I have thus related my misfortune and experience, that the lady may judge whether there is reason to "hope for information" from any thing I may say upon the subject.

Dr. James Tilton, of Wilmington, Delaware, if not the discoverer, was I believe the first to communicate this valuable remedy. His essay upon this subject was first published in the Domestic Encyclopædia, (American edition.)

Dr. Tilton, I am well informed, for a long time "carefully noted the various accidents, diseases, and depredations which injure trees and cause their fruit to perish," and solely with patriotic motives published the result of his investigations.

Yet almost every where these devouring insects go on blasting the finest fruit our climate produces, notwithstanding the cheapness and never-failing efficacy of the remedy he has pointed out. * * *

* * * * * * * * *

Let me therefore request all who are suffering from the depredation of this insect, to read what he has written upon the subject, and carefully follow his directions. If there should, however, be some who cannot conveniently put this method into practice, let me beg of them, as patriots and good neighbours, *to cut down every one of their useless trees*, and in this way help to destroy the prolific nursery of this baneful insect.

[We avail of the hint contained in the above letter, and copy the Essay of Dr. Tilton referred to. We take the occasion to request others who have tried the mode of destroying insects recommended by Dr. Tilton, to favor us with an account of the result, whether favorable or unfavorable.—Ed. Amer. Far.]

(From the American Edition of Willich's Domestic Encyclopædia.)

Curculio, *by Dr. James Tilton of Delaware.*

"Curculio, a genus of insects belonging to the *Coleoptero*, or *Beetle* order. The species are said to be very numerous. The immense damage done, by an insect of this tribe, to the fruits of this country, of which there is no similar account in Europe, has given rise to a conjecture with some naturalists that we have a peculiar and very destructive species in America.

"The manner in which this insect injures and destroys our fruits, is, by its mode of propagation. Early in the spring, about the time when the fruit-trees are in blossom, the *Curculiones* ascend in swarms from the earth, crawl up the trees, and as the several fruits advance, they puncture the rind or skin, with their pointed rostra, and deposit their embryos in the wounds thus inflicted. The maggot thus bedded in the fruit, preys upon its pulp and juices, until in most instances, the fruit perishes, falls to the ground, and the insect escaping from so unsafe a residence, makes a sure retreat into the earth: where, like other beetles, it remains in the form of a grub or worm, during the winter, ready to be metamorphosed into a bug or beetle, as the spring advances. Thus every tree furnishes its own enemy; for although these bugs have manifestly the capacity of flying, they appear very reluctant in the use of their wings; and perhaps never employ them but when necessity compels them to migrate. It is a fact, that two trees of the same kind may stand in the nearest possible neighbourhood, not to touch each other, the one have its fruit destroyed by the curculio, and the other be uninjured, merely from contingent circumstances, which prevent the insects from crawling up the one, while they are uninterrupted from climbing the other.

[Why not tie a rope dipt in tar round the tree, about the time when these insects begin to appear? The tar can be renewed. We strongly recommend the treatise on fruit trees, by Mr. Cox, of Burlington, New Jersey.—T. C.]

"The curculio delights most in the smooth skinned stone fruits, such as nectarines, plums, apricots, &c. when they abound on a farm: they nevertheless attack the rough-skinned peach, the apple, pear, and quince. The instinctive sagacity of these creatures directs them especially to the fruits most adapted to their purpose. The stone fruits more certainly perish by the wounds made by these insects, so as to fall in due time to the ground, and afford an opportunity to the young maggot to hide itself in the earth. Although multitudes of seed fruits fall, yet many recover from their wounds, which heal up with deeply indented scars. This probably disconcerts the curculio, in its intended course to the earth. Be this as it may, certain it is, that pears are less liable to fall, and are less injured by this insect than apples. Nectarines, plums, &c. in most districts of our country, where the curculio has gained an establishment, are utterly destroyed, unless special means are employed for their preservation. Cherries escape better, on account of their rapid progress to maturity and their abundant crops: the curculio can only puncture a small part of them, during the short time they hang upon the tree. These destructive insects continue their depredations from the first of May until autumn. Our fruits collectively estimated must thereby be depreciated more than half their value.

"It is supposed the curculio is not only injurious above ground, but also in its retreat, below the surface of the earth, by preying on the roots of our fruit trees. We know that beetles have, in some instances, abounded in such a manner as to endanger whole forests. Our fruit trees often die from manifest injuries done to the roots by insects, and by no insect more probably than the curculio. In districts where this insect abounds, cherry-trees and apple-trees, which disconcert it most above, appear to be the special objects of its vengeance below the surface of the earth.

"We are unacquainted with any tribe of insects able to destroy the curculio. All the domestic animals, however, if well directed, contribute to this purpose. Hogs in a special manner are qualified for the work of extermination. This voracious animal, if suffered to go at large in orchards, and among fruit-trees, devours all the fruit that falls, and among others the curculiones, in the maggot state, which may be contained in them. Being thus generally destroyed in the embryo state, there will be few or no bugs to ascend from the earth in the spring, to injure the fruit.

"The ordinary fowls of a farm-yard are great devourers of beetles. Poultry in general are regarded as carnivorous in summer, and therefore cooped sometime before they are eaten. Every body knows with what avidity ducks seize on the tumble bug, (*Scarabæus carnifex*,) and it is probable the curculio is regarded by all the fowls as an equally delicious morsel. Therefore it is, that the smooth stone fruits particularly, succeed much better in lanes and yards, where the poultry run without restraint, than in gardens and other enclosures, where the fowls are excluded.

"Even horned cattle and all sorts of stock may be made to contribute to the preservation of our valuable fruits. By running among the trees, they not only trample to death multitudes of these insects; but by hardening the ground, as in lanes, it becomes very unfit to receive or admit such tender maggots as crawl from the fallen fruits. Besides, the curculio is very timid, and when frightened by the cattle rubbing against the tree or otherwise, their manner is to fold themselves up in a little ball and fall to the ground; where they may be trampled and devoured by the stock, poultry, &c. Col. *T. Forrest*, of Germantown, having a fine plum-tree near his pump, tied a rope from the tree to his pump-handle, so that the tree was gently agitated every time there was occasion to pump water. The consequence was, that the fruit on this tree was preserved in the greatest perfection.

"All the terebinthinate substances, with camphor and some others, are said to be very offensive to insects generally. Upon this principle, General *T. Robinson*, of Naaman's creek, suspends annually little bits of board, about the size of a case knife, dipped in tar, on each of his plum trees. From three to five of these strips are deemed enough, according to the size of the tree. The general commences his operations about the time or soon after the trees are in full bloom, and renews the application of the tar frequently, while the fruit hangs on the tree. To this expedient, he attributes his never failing success. Other gentlemen allege, that common turpentine would be still better: being equally pungent and more permanent in its effects. Some have sown offensive articles, such as buckwheat, celery, &c. at the root of the tree, and have thought that great advantages followed.

"*Ablaqueation*, or digging round the trees, and making bare their roots in winter, is an old expedient of gardeners for killing insects, and may answer well enough for a solitary tree, a year or two; but the curculio will soon recover from a disturbance of this sort, and stock the tree again.

"There is no surer protection against the curculio than a pavement. This, however, is only applicable to a few trees. It may serve in town: but will not answer in the country. Flat stones may however be placed round the tree, and where lime is at hand, they may be cemented.

"Many other expedients, such as smoking, brushing, watering, &c. may be successfully employed, for the protection of a favourite tree or two; but it is manifest, from the preceding history, that a right disposition of stock, especially hogs, among the fruit-trees, can only be relied upon by a farmer, with orchards of considerable extent. And that the stock, poultry, &c. may perform the task assigned them, it is evident, that a proper disposition of fruit-trees is essentially necessary.

"As the smooth stone fruits are the grand nurseries of the curculio, special care should be taken, to have these effectually protected. Unless this can be done, a farmer should not suffer them to grow on his plantation. He will derive no benefit from them; and they will furnish a destructive vermin that will ruin his other fruits. Cherry-trees, nectarines, plums, apricots, &c. should therefore be planted in *lanes* and *hard beaten yards*, or paved yards, the common highways of all the stock of the farm, and not beyond the range of the ordinary domestic fowls. Orchards of apple-trees, pear-trees, peach-trees, &c. should all be in one enclosure. The pear-trees and peach-trees may occupy corners of the whole design, so as occasionally to be fenced off. In large orchards, care should be taken that the stock of hogs is sufficient to eat up all the early fruit which fall, from May until August. This precaution will be more especially necessary in large peach orchards: for, otherwise, when the hogs become cloyed with the pulp of the peach, they will let it fall out of their mouths, and content themselves with the kernel, which they like better: and thus the curculio escaping from their jaws, may hide under ground, until next spring. Solitary trees of one fruit or another, remote from the orchard, should be regarded as nurseries of the curculio, and ought to be cut down or removed to the common enclosure. A young orchard should not be planted in the place of, or adjacent to an old one; that it may not be immediately infested with the curculio.

"It is also apparent, from what has been said, that great advantages might result from an association or combination of whole neighbourhoods against this common enemy. Although an intelligent farmer may accomplish much, by due attention, within his own territory, the total extermination of the curculio can hardly be expected, but by the concurrent efforts of whole districts."

Extract: *Port of Oxford, Md. April* 4, 1830.

Dear Sir,—The piece addressed to the friends of horticulture in the United States has fallen into my hands in the American Farmer, and the National Gazette of Philadelphia; and I beg to make some remarks on insects, &c. to you which I hope will be received.

I have turned a part of my attention for the last thirty-five years to the rearing of the best fruits that I could find to suit our climate, (39° N. latitude,) and since I have been engaged in the United States' business, have spent $1000 in them, and have succeeded beyond my most sanguine expectations. They are from France, Spain, Italy, Egypt, Holland, Germany, and some little from England and the islands. I have been somewhat imposed on, and have discarded from 40 to 60 sorts not worth propagating in this climate, if elsewhere—and now have 140 sorts left. But, strange as it may seem to you, there are on some of them insects of different appearance, that I can prove to be the same species! The fruit from different countries appears to alter the colors of the different sorts of insects. I have tried many experiments to destroy them, not entirely without success, but not infallible against many; but by accident I found a remedy against the sorts most complained of in this country, viz. the *curculio*, the *slugs*, in peach and plum-trees, the *cocus*, and the *smother fly*. The curculio is the insect that punctures the fruit generally in the night, and it is it and the slugs that make the fruit drop and rot.

I have tried mercurial applications, had some little success with them, particularly unctions; the caterpillar and red spider do not come out of the earth and are easily destroyed; but all the worst sorts above named come out of the ground, although the slugs are deposited by a fly.

At the time the curculio comes to do its mischief the fruit is of some size, say as large as a small nutmeg in many sorts; it cuts a semi-circle in the fruit, deposits its egg—in 24 to 36 hours if the weather be warm it is hatched and buried to the stone—if stone fruit. It is a small grey bug, and after it does mischief at night will return by sunrise or a little after, to the earth and conceals itself a quarter, or half inch in the soil—where several of the other sorts are also concealed. The slugs are in the *bark* near the ground.

I have an infallible remedy for the whole, but it must be used two or three times in bad seasons; for these insects do not all come at one time, or we could destroy all in one day. It is a misfortune, that if I destroy all this year, my neighbours will raise enough to prey on my trees next year.

My remedy is prepared as follows:

Take common wood ashes, and make a large quantity of lye, where you have many trees, and boil it in a cistern; if it is strong the better—if your trees are small, draw a circle round them, three feet in diameter, and scald the circle up to the root and trunk of the tree: if it is young and tender do not scald the trunk much; but if the tree is of some age and size draw your circle five to six feet in diameter, and scald the trunk two feet high and all the circle well; should all of the insects not be killed, those that come to bury will quit the place, tree and all. It is also a grand manure for the tree, if there were no insects. I have used it myself upwards of twenty years.

Note.—The best time to make the application is from 10 to 12 o'clock, A. M.

The best *wash* for the trunks of trees that I ever discovered or tried, is the suds of soft-soap, let stand in a cask or tub until offensive, then put in as much tobacco as will turn it red, one or two handsful of salt, and one or two gallons of beef-brine to every barrel.

It will destroy the moss, and thousands of eggs, but not kill all the insects; it will make many leave the tree and drive the curculio to others. This mixture I put in the former when convenient.

With due respect, &c.

JOHN WILLIS.

David Landreth Jr. Esq. Cor. Sec.
Pennsylvania Hort. Society.

Woodbury, N. J. April 12th, 1830.

Dear Sir,—The address of your society, and the communication to you from a lady of New Jersey, in the Saturday Evening Post, 10th inst., wishing information how to prevent fruit dropping off at a premature age, fell in my way this morning.

I have a variety of plum-trees in my garden, such as yellow, copper color, and blue gages, prunes, common damsons, &c.; the trees are young and thrifty. During several years of great bloom scarcely one would come to perfection; by accident the following discovery was made about three years ago:

When the fruit is perfectly set or half grown, I take a small hammer and bruise the trunk of the tree in twelve or fifteen places, from near the root to the branches; the sap or gum will run out which I am satisfied will prevent the fruit from falling off. My neighbour Mr. L——— has practised the same with success. I viewed his trees a few hours ago; he is well satisfied with the utility of it.

I will not undertake to give exact reasons why it should prevent the fruit falling off at a premature age; it may be that the insects feed on the sap or gum—that also there may be a superfluous quantity of sap in such trees, I will entirely leave it to those of superior judgment.

Very respectfully yours, R. R.

David Landreth Jr. Esq. Cor. Sec.
Pennsylvania Hort. Society.

(From Niles' Register.)

NATIVE GRAPES.

We hasten to publish the following very interesting article from the pen of a *practical* and patriotic gentleman, who has long been engaged in making large quantities of American wine.

In furtherance of his object we may add—that we well recollect to have heard the late valued Mr. *Bayard*, of Delaware, (who was an excellent judge of wines, as well as many other things,) speak of an accidental call that he, and another member of congress, made upon a quaker gentleman near Philadelphia, during the summer session of 1798, by whom they were kindly entertained, though entire strangers to the farmer, and with whom they dined, being served with excellent wine, which Mr. B. and his friend thought was a very superior sherry. After they had pronounced judgment on the wine, and given ample testimony of its goodness, the farmer led them into a cellar, where they found some 20 or 30 casks, marked with the years in which the wine was made, and very neatly arranged, with no small quantity of bottles, apparently filled also with wine, as no doubt they were; and the farmer told them that all was made from the little, or frost grape, as it is commonly called, and that he had been in the habit of making two barrels a year, for a long time past, which cost him only a trifle—some of which, when ripened by age, he gave away, reserving the rest for his own moderate use and those of his friends who might call upon him; and that the wine which they had *honoured*, by freely partaking of, (when other good drinkables were present,) was from this grape.

(From the Georgetown Columbian Gazette.)

MR. EDITOR:—As there is now growing over the whole face of our country, thousands of bushels of wild grapes, and as the *fox grape* is now nearly of the size it will come to when at maturity, I have written the accompanying receipt, which if you publish in your useful paper, it may be some advantage to the public in general.

I have, according to this *receipt*, made wines of various qualities, some of which accompanies this—it was sometimes at three or four years old equal to the best *Madeira*, according to the opinion of good judges, and none of it so bad as the low priced *rot gut* wines now imported, such as your *Malagas, Clarets, &c.* and it is as salubrious as the best of those imported. I have made wine of a *fox grape* that was pronounced by Mr. Jefferson and others, equal to the *Burgundy* of *Chambertin*, one of the best wines in France, and it was at the time compared with *Burgundy* he had on his table, imported by himself when he was *president* of the *United States*. And last autumn I made a pipe of wine from the common small grape, growing spontaneously on the fences, stone-heaps and shrubs, by some called the *Chicken*, and by others the *Ciolyon grape;* it is the *vitis-sylvestris*, or blue bunch grape of *Bartram*. This wine was pronounced by several *ladies* and *gentlemen* recently from France, equal to, and of the flavour of *Burgundy*, that cost in France *five francs* per bottle. I am, sir, very respectfully, yours, &c. JOHN ADLUM.

To make wines of immature grapes.

Although wine may be made in any stage of their growth, and of any kind of grape, I would advise them to be left on the vines until they have attained their full size; and as the skin and stem of the unripe grape has no bad flavour, the grapes may be used in any stage of their growth. Grapes of different sorts and sizes may be mixed together.

The following receipt is for ten gallons, which may be increased to any quantity by taking the fruit, &c. in proportion.

To a tub of the capacity of fifteen or twenty gallons, take forty pounds of immature grape, (*no matter for the variety, whether wild or cultivated*,) and bruise them in successive portions, by a pressure sufficient to burst the berries without breaking the seeds; four gallons of water are then to be poured into the vessel, and the contents are to be carefully stirred and squeezed by the hand until the whole of the juice and pulp are separated from the solid matters. The materials are then to remain at rest for a period from six to twenty-four hours, when they are to be strained through a coarse bag, by as much force as can be conveniently applied to them—one gallon of fresh water may afterwards be passed through the *marc*, for the purpose of removing any soluble matter which may have remained behind. Twenty-five pounds of good, clean sugar, either brown or white, are now to be dissolved in the juice *thus procured*, and the total bulk of the fluid made up with water, to the amount of ten gallons and a half.

The liquor thus obtained is the artificial *must*, which is equivalent to the juice of the grape. It is now to be introduced into a tub of sufficient capacity, over which a blanket or similar texture, covered by a board, is to be thrown, the vessel being placed in a temperature of from 60° to 80° of Fahrenheit's thermometer. Here it may remain for twenty-four hours or two days, according to the symptoms of fermentation which it may show, and from this tub it may be drawn into the cask in which it is to ferment. When in the cask it must be filled to the bung-hole, that the scum which arises from the bottom may be thrown out—as the fermentation proceeds, and the bulk of the liquor in the cask diminishes, the superfluous portion of the *must* (viz. the half gallon,) which was made for the express purpose, must be poured in, so as to keep the liquor still near the *bung-hole*. When the fermentation becomes a little languid, as may be known by the diminution of the hissing noise, the bung is to be driven in and a hole bored by its side, into which a wooden peg is to be fitted—this peg may be drawn once in two or three days for a few minutes, to let the air that has been generated escape; and in about three weeks or a month it may be drove in permanently tight.

The wine thus made must be put in a cool cellar, as it is no longer necessary to promote the fermenting process. If the operator is not inclined to bestow any further labour or expense, he may examine it in some clear, cold day in January or February, or the beginning of March, when if it is fine and bright, as it frequently will be, it may be bottled without further precautions. To insure its fineness, however, it is the better practice to rack or decant it towards the end of December into a fresh cask, (fumigated with sulphur,) so as to clear it of its lees. At this time also the operator will be able to determine whether it is not too sweet for his views. In this case, instead of racking it, &c. he will stir up the lees, so as to renew the fermenting process, taking care also to increase the temperature at the same time. At whatever time the wine is racked it ought to be fined. Sometimes it may be necessary to rack it a second time into a fresh cask, (*if the wine is not perfectly bright*,) and again repeat the operation of fining. All these removals should be made in clear, dry, and if possible, in cold weather. In any case it must be bottled during the month of *March*.

The wine produced will generally be brisk, and similar in its qualities to the wines of *Champaign*, with the strength of the best *Sillery*.

Circumstances which cannot always be controlled, will sometimes cause it to be sweet and still, and at others to be dry.

Variations of the process described above.

The skin of the grape or the whole *marc*, as well as the juice may be fermented together in the vat or tub, along with the sugar, in the first stage of the process.—The fermentation will thus be more rapid, and the wine prove stronger and less sweet, but it will acquire more flavor.

Cream of tartar, or which is preferable, *crude tartar*, may be added to the *must* in the proportion of six ounces to ten gallons, or one pound to a barrel.

If it is wished to have a very sweet as well as brisk wine, the sugar may be increased five pounds for every ten gallons. And in this case, if the fruit is increased to fifty pounds instead of forty, or in that proportion, and keep it two years in the cask, *it will assume a Madeira flavor, and it will be a pleasanter and better wine than most Madeira now imported.* If the wine is intended to be less sweet, *that is,* five pounds less of sugar to the ten gallons, if it is not bottled in *March,* it will, after the month of August or September, be a better wine than the *French Madeira* now imported. But in all the above processes, if it is bottled in March, it will seven times out of ten sparkle like *Champaign.* And all sparkling wines, to drink them in perfection, ought to be drank in from twelve to eighteen months after it is made.

To insure briskness without excessive sweetness, the fruit must be increased to fifty pounds, when the sugar is from 25 to 30 pounds. If, during the fermentation of wine thus formed, there should appear any danger of the sweetness vanishing altogether, it may be racked into a cask, fumigated with sulphur, and the fermentation checked by fining. Thus it will be speedily fit for use.

The best mode of fining wines that I am acquainted with, is as follows, say for a cask of from thirty to thirty-four gallons:

Draw off a gallon or more wine, then take one quart of milk immediately from the cow after milking and before any separation takes place, to which add two table spoonsful of salt and one of the *sweet spirits of nitre*—mix it with the wine drawn, and pour it into your cask and stir it well, and leave the bung loose for about twelve hours, and then drive it tight, and in from eight to ten days it will be beautifully fine and bright, and is ready to bottle.

If the fermentation is complete, and all the sweet principle turned to *alcohol,* fining is unnecessary, as the wine will be perfectly fine and bright—and it is only to be fined when there is small particles floating in it, or cloudy; and when all the sediment, mucilage and other impurities are got clear of, either by fermentation or fining, it will then keep clear for an age or ages—no matter for its strength, without it should extract some fermenting principle out of the cask.

LADIES' DEPARTMENT.

(From Blackwood's Magazine.)

THE FIRST GREY HAIR.

The matron at her mirror, with her hand upon her brow,
Sits gazing at her lovely face—aye lovely even now:
Why doth she lean upon her hand with such a look of care?
Why steals that tear across her cheek?—She sees her first grey hair.

Time from her hath ta'en away but little of its grace:
His touch of thought hath dignified the beauty of her face,
Yet she might mingle in the dance where maidens gaily trip,
So bright is still her hazel eye, so beautiful her lip.

The faded form is often mark'd by sorrow more than years;
The wrinkle on the cheek may be the course of secret tears;
The mournful lip may murmur of a love it ne'er confest,
And the dimness of the eye betray a heart that cannot rest.

But *she* hath been a happy wife—the lover of her youth
May proudly claim the smile that pays the trial of his truth:
A sense of slight—of loneliness—hath never banish'd sleep;
Her life hath been a cloudless one;—then wherefore doth she weep?

She look'd upon her raven locks;—what thoughts did they recall?
Oh! not of nights when they were deck'd for banquet or for ball;
They brought back thoughts of early youth, e're she had learnt to check,
With artificial wreaths, the curls that sported o'er her neck.

She seem'd to feel her mother's hand pass lightly through her hair,
And draw it from her brow, to leave a kiss of kindness there;
She seem'd to view her father smile, and feel the playful touch
That sometimes feign'd to steal away the curls she prized so much.

And *now* she sees her first grey hair! oh, deem it not a crime
For her to weep—when she beholds the first foot mark of time!
She knows that, one by one, those mute mementos will increase,
And steal youth, strength, away, till life shall cease.
'Tis *not* the tear of vanity for beauty on the wane,
Yet though the blossom may *not* sigh to bud, and bloom again,
It cannot but remember with a feeling of regret,
The spring for-ever gone—the summer sun so nearly set.
Ah, lady! heed the monitor! thy mirror tells thee truth,
Assume the matron's folded veil, resign the wealth of youth.
Go!—bind it on thy daughter's brow, in *her* thou'lt still look fair;
'Twere well would all learn wisdom who behold *the first grey hair!*

MISCELLANEOUS.

THE VIOLIN.

It is remarkable that almost the entire of the fine violins now to be found are the work of the Cremonese makers. Time may have done something for them, for the violin certainly improves by age if it be originally a good one. But there is still something more difficult to be ascertained, in their workmanship. Their violins have often been taken to pieces by the most expert artists, for the purpose of constructing others on their exact model, and yet the experiment has utterly failed. New constructions have been tried, and scientific models on the principles of sound have been invented, but without shaking the superiority of the Cremonese. But the most studied and dexterous experiments were made about ten years ago in Paris, by a M. Chanot. This intelligent artist presented one of his instruments to the French Royal Academy of the Fine Arts, with a curious memoir, in which he explained his proceeding. His principle was the acknowledged one, that the long fibres of the wood are fitter for the production of the low tones, and the shorter fibres, or arches, for the high tones. By fixing the sounding post at the back of the bridge, the fibres of the sounding board are divided into two arches, instead of being cut in two on the side of the E. string. And this division is necessary, because the high tones being produced on that side, the bridge acts on the shorter arches like a small lever, while on the side of the bass string the fibres are enabled to vibrate in the long arches necessary to produce the low tones. But the more remarkable change was in the cutting of the sounding board. Among other points here, M. Chanot disapproves of the shape of the letter *f* for the sound holes of the violin, as cutting too many fibres. In his invention those holes are parallel and straight. A committee, on which were Cherubini, the composer, and Prony, the engineer, gave in a favourable report on this violin, which they had heard played on by Bouchier, the famous violinist, in an adjoining room, alternately with a Stradivarius, without being able to discover which was which, excepting that they mistook the old violin for the new, which, as being the presumed superior, was a triumph for M. Chanot. But from all this we have not heard of any further results. The violin of Cremona still holds its ancient supremacy, and deserves it, at least in point of figure; for the new violins are angular, and unpleasing to the eye. We have heard no more of M. Chanot, and are inclined to conclude that his invention was finally found inapplicable. This, however, should not deter our English artists from the experiment. They make the best harps and pianos in the world, and why they should not make every other instrument equally well is beyond our conjecture.

[*Eng. pa.*

Among the steerage passengers of Francois 1st, on her last passage, there was an old weather beaten grenadier of the Imperial Guard, with the legion of honor in his button hole, one of the 1400 who 16 years ago followed Napoleon into the island of Elba. The French police, however, knew him, little thanks for it, and the poor fellow was so vexed and harassed, that in order to escape starving, he resolved upon leaving his country. He did so, and embarked with his family on the 2d June, in the Francois 1st. The old man's fate excited a lively interest among the cabin passengers, and they among other means advised him to address himself to Joseph Bonaparte, for which purpose they drew up for him a petition. Provided with this and his military testimonials the old man resolved to seek access to Count Survilliers. Arrived at New York, he hastens down to the wharf to inquire into the amount of the fare to Bordentown, at the moment when the Philadelphia steamboat arrives. He boards the boat, and looks around for a French face, and addresses himself to the first gentleman in his way. His question is politely answered—he begins to talk about his intentions—about going to Bordentown, and the gentleman becomes more attentive, and seemingly more interested. At last the gentleman asks the old grenadier about his papers, which he examines with the petition. My friend, says the gentleman, I assign you herewith fifteen dollars a month as a pension for your life time. I am Joseph Bonaparte—you may proceed to Bordentown where you shall be so provided for as to make you forget your past miseries. This scene took place Tuesday, the 20th July. An Eye Witness.

MILITARY FORCE OF CHINA.

We have been told that the whole military force of the empire is upwards of a million of men. This may be true; but there never existed an army of the same numerical force, so feeble, so little adequate to the defence of the country, or so perfectly ignorant of the art of war. In the province of Fokien, civil wars have occurred between two powerful clans, which the military were unable to quell. Indeed, they never attempt it, when eight to ten thousand men of a side meet to decide some family quarrel. They look calmly on until the affair has had its bloody issue, when they intrigue with the stronger party to deliver over for trial some of those whom they have conquered. The governor then dispatches a flaming account to Pekin, relating the victory obtained over the rebels; and asks permission to cut off the heads of the prisoners. On receiving an answer (always in favour of cutting off heads) those poor wretches suffer punishment, and there ends the affair. There is a sect in China, very formidable, called "the Celestial Fraternity," who, certaioly, if what the Chinese say of them be true, have some influential characters among them, by whose intrigues many of the revolts we have read of have been produced. Although the fraternity at Canton is said to be composed of gamesters, robbers, pirates, and the very dregs of society, these men being very daring, do oftentimes defy the police. Their object, I have been told, is the subversion of the Tartar dynasty.—*Dobell's Travels.*

At the last *conversazione* of the College of Physicians, Dr. Francis Hawkins read a letter from Sir Robert Ker Porter, addressed to the President of the College, on the subject of a medicinal plant growing wild in South America, and called the *guaco;* respecting the virtues attributed to which plant, Sir Robert had been at great pains to collect some facts and interesting information. It appears that there are native Indians and negroes in some parts of South America, who possess a wonderful power of handling the most venomous serpents with impunity. It has been ascertained that they owe their protection to the internal use and external application of the leaves and expressed juice of the guaco. The same means are also found effectual for the cure of the bites of serpents and other poisonous reptiles. It is further stated that the use of this plant is the best preservative from, and the only cure for, that most dreadful of diseases, *hydrophobia*. The plant has received its name from the manner in which its properties were discovered. A bird of the kite kind, a great destroyer of serpents, had been observed to attack them always with impunity, after feeding on this plant;—the bird is called the serpent-falcon, or *guaco,* from the monotonous cry which it utters; and the plant has been named after the bird. It is a creeper plant, corymbiferous, growing in the hotter regions of the new world, along the sides of rivulets, and in well-shaded spots. Many other virtues are attributed to it; as, that it is a cure for rheumatism and consumption, and various other disorders. After making due allowance for some degree of exaggeration, and for the influence of superstition, it appears certain that it possesses some virtues as an antidote to animal poisons. On the table there was placed a bottle of the juice of the guaco, expressed in South America, as well as a dried flower, and a leaf from a plant raised in this country in a hot-house, where it grows readily.

The following curious account of the ichneumon was given at the last meeting of the Westminster Medical Society, by Mr. Duncan, a medical gentleman from India:—"There was," he said, "a little creature met with in the country, called the munghoos (the ichneumon,) which was considered to be the master of snakes; and of this animal it was said, that when bitten it immediately went in search of a certan plant of which it ate, and then hastened back to the contest. The *ophioxylon serpentinum* was pointed out as that plant. It happened to him to have the opportunity of witnessing a battle between a young tame munghoos and an ordinary sized cebra, procured purposely for the occasion, as it had been resolved to match this munghoos with the first powerful serpent that might be caught. Mr. Duncan resolved, accordingly, to satisfy himself of the truth of the statements he had heard, and took the precaution of bringing to the scene of action (a smooth floor at the house of Major, now Lieutenant-Colonel, Farquarson,) in a basket, a plant of the *ophioxlyon serpentinum,* taken from his garden, to offer to the animal, should it go in search of the supposed antidote. The fight commenced, and in destroying the fang on each side of the serpent's jaw, the one of which the munghoos removed, and the other it broke, the animal was wounded in several places in the mouth. It thereupon, almost immediately, left the serpent, ran from bush to bush around, biting most impatiently at various leaves in an agony of excitement. Mr. Duncan, on seeing this, broke off a leaf of the plant he had brought, and offered it to the animal, but it refused it. Thinking the perspiration of his hand had possibly interfered with the experiment, he bruised down some leaf between two pieces of paper, and gave it to its keeper to offer. The little creature swallowed a good portion of it greedily, and immediately running back amongst the spectators, seized the serpent by the head, gave it a thorough shaking, looked at it earnestly, saw it was dead, and then ran away, apparently quite satisfied; and on the following day the munghoos was in perfectly good health, and so continued.

Breakfast in the Reign of Henry VIII

Some centuries since, ale and wine were as certainly a part of a breakfast in England, as tea and coffee are at present, and even for ladies. The Earl of Northumberland, in the reign of Henry VIII.; lived in the following manner:—"On flesh days through the year, breakfast for my lord and lady was a loaf of bread, two manchets, a quart of beer, a quart of wine, half a chine of mutton, or a chine of beef, boiled. On meagre days, a loaf of bread, two manchets, a quart of beer, a quart of wine, a dish of butter, a piece of salt fish, or a dish of buttered eggs. During lent, a loaf of bread, two manchets, a quart of beer, a quart of wine, two pieces of salt fish, six baconed herrings, four white herrings, or a dish of sprats."

Poland.—The number of manufactories in Poland, in 1815 was 100; it is now 6000. Among other articles they produce 7,000,000 ells of cloth per annum. In the end of 1829, the population of the kingdom was 4,088,289, being an increase of 383,953 since 1823.

Extraordinary Cucumber.—On the 8th June, the gardener of William Hardman, Esq. of Chamber Hall, near Bury, cut a cucumber, of a new kind, called *Bloor's White Spine,* of the following dimensions:—length 26 inches, girth 11 inches, weight 5lb. 8¾oz. It did not appear overgrown, but in a proper state for the table.

Steamboats on the Rhine.—*Manheim, May* 31. The day before yesterday, a little after four o'clock, the steamboat, the Louis, arrived here from Mentz. The merchants of Manheim had made preparations for its reception, which took place amid discharges of cannon. Thousands of spectators covered the banks of the river. The Grand Duchess made an excursion on the Rhine with the Princesses, her daughters, on board the Louis. To-day this vessel left for Schrœck.

THE FARMER.

Baltimore, Friday, August 20, 1830.

☞ Agricultural Improvements.—The great improvements effected in agriculture within a few years are discernible by the most indifferent observer; and, although too many of our farmers still continue in the old beaten track, those improvements are still going on, in something like geometrical progression—for it is a fact, that every farmer who adopts an improved system, by example causes his neigbours to do the same. There is in Virginia immense bodies of worn out land—worn out by what is aptly called the "old Virginia system," that is, the continual taking off of crops and returning nothing to the soil, not even allowing it time to breathe and draw a little nourishment from the atmosphere and its natural resources—it might be justly styled the exhausting system. As fast as the soil became impoverished by this management, new land was cleared, worked, worn out, and turned out of doors, as before, until the planter found himself beggared with the fee simple of a thousand acres in his pocket. But the spirit of improvement is abroad upon the earth, and we are glad to observe its influence exerted as benignly upon the interests of agriculture, as upon any other department of industry, and that our agricultural friends of Virginia are renovating their lands and improving their own condition under it. We had merely intended to call the reader's attention to the report of the committee of the Agricultural Society of Albemarle, Va. the publication of which we commence this week. There is much practical matter, and many useful hints in this report; and the hint is not the least important which suggests that the old worn out lands are susceptible of renovation by the adoption of a judicious system of management.

☞ On Sunday, Monday and Tuesday last, we had a pretty heavy fall of rain which has relieved the thirsty earth, and revived vegetation wonderfully. Whether it has come in time to save the corn crops, which had suffered greatly from the drought, we are unable to say.

The drought extended over the whole of the middle and Southern states. A letter from Jefferson county, Va. says, "we have had but one rain for two months, and our corn is positively lost." In Louisiana, the drought has been very severe.

The paper at St. Francisville, of the date of July 17th, says:—"The drought continues; on Thursday last the thermometer stood at 102 in the shade." From St. Martinsville we learn that showers had fallen during the week preceding the 17th July, in several parts of Attakapas, but that they were not abundant. In the whole district of Vermillion the crops had been very materially injured by the prevailing dry weather. The plantations of the Teche, below Franklin, have suffered less than in other parts of the country. A month previous the planters were in high spirits—but they now calculate the product of the season will not exceed a tolerable average crop. A gentleman residing in the lower part of the Vermillion, writes thus: "This day (July 16,) will make 47 days that there has been no rain here, or in the immediate neighborhood. Nearly every thing is burnt up, and crops will fall short of all former expectation." At Baton Rouge, they had a sprinkle of rain about the middle of July. The drought was excessive—the crops of corn were partially lost, and the sugar canes had begun to suffer, having been without rain for six weeks. "We learn, says a B. R. paper of the 17th, that throughout the state the crops are equally suffering."

The Richmond Va. Compiler of August 16, says—"we had a slight sprinkling of rain about 12 o'clock on Saturday night. Almost every sign of the vegetation of the grass has again disappeared. Some of the corn in this immediate neighborhood has been revived more than could have been expected—but much even of the silk and tassel of that, which looks tolerably well, is withered—and the grain will not fill as full as general. Our streets are parched up, and the roads are extremely dusty and unpleasant for travellers. Since writing the above last evening, 7 o'clock, we have had a cloud blown up from the west—accompanied by very vivid and almost incessant electricity for nearly an hour, high wind, and a heavy rain. It has very agreeably cooled the atmosphere—the thermometer, which was about 92½ degrees last evening at 4 o'clock, falling 8 or 10 degress about 8 o'clock. The cloud was very black; and we should not be surprised to hear of some damage being done to the trees and corn by the wind—and perhaps some hail."

☞ Bakewell Sheep, &c.—Frequent inquiries after Bakewell Sheep have been made, to which the following will serve as the best answer we can give. We have understood from others that Mr. Barney's flock has been brought to a high state of perfection by the agency of those very superior specimens imported from Mr. Champion. Those who wish to have the genuine Dishley blood, can have no better, at home or abroad than Mr. Barney can supply.

J. S. Skinner, Esq. *Philadelphia, Aug.* 17, 1830.

Dear Sir,—Your favour of the 10th inst. I received respecting Bakewell sheep, it is with astonishment I think of the backwardness of sheep owners in procuring the Bakewell sheep, when they can be had for so small a sum with little or no risk, or trouble; since I procured the three of you, imported from Mr. Champion, which I paid you three hundred dollars for, my flock has very much improved, and is allowed by competent judges to be equal to most flocks of the same breed in England. I have said and repeat it again, for twenty-five years past they have been the most profitable stock I have turned my attention to. I have at this time on my farm, sheep which are allowed to weigh 40 lbs. per quarter, 43 wethers, one and two years old past, which it is said will average in weight 25 to 30 lbs. per quarter, which I expect will go to New York, having been offered twelve dollars per head for them by a respectable butcher of that city; cost of delivery 50 cents per head; their wool is in great demand at about 40 cents per lb. I have for sale one three years old ram and one four years old do. These two are very superior, having been put to my ewes two seasons; price for them 50 dollars each, four one year old rams, also very fine, 20 dollars each, sent on to Baltimore, Philadelphia, or New York; ewes 10 dollars each. Letters, post paid, directed to me, Philadelphia, will be punctually attended to. A few North Devon cattle for sale of a very superior quality, for fifty dollars each. John Barney.

[That our valued correspondents may form an idea of the estimation in which their labours in the cause of agricultural improvement are held, we make below a few extracts from a letter just received, and which is by no means unusual in its tenor.]

Bedford, Near Augusta, Georgia, August 1, 1830.

J. S. Skinner, Esq.

Dear Sir,—It is not with a view of receiving a number gratis, that I exert my feeble efforts in your behalf, but the deep interest I take in seeing so valuable a work disseminated through the country. If I had it in my power to procure you fifty subscribers, I should think the subscription not an equivalent to the information received.

The simple remedy of curing the distemper in dogs, by the administering of laudanum, is worth ten year's subscription. It creates within me a disposition to experiment, from seeing the great crops made from small farms; it bids me be careful of the manure, and teaches me to feel that I can make more from one hundred acres, than I now make from two hundred and fifty. If you could see the large quantity of leaves and decayed wood, I have in piles ready for my yards, stables and fields, you could but exclaim, go on, you pursue the proper course to enrich your grounds. It is my intention to open deep furrows—fill with leaves, bed up and let them lay in that state till spring—then break up the beds with a rooter and plant. I shall manure, for a beginning, about thirty acres in that way. It is a general complaint that there cannot possibly be more than a half crop of corn in this section of the country. It has been two months last Tuesday since we had a rain to wet the ground two inches, and if I make a half crop, I shall be amply satisfied. Your obedient servant,

J. L. C.

☞ There has been no intelligence from Europe since our last.

Prices Current in Boston, August 13.

Apples, best, bbl. .200 a 3.00. *Beans*, white, bushel, .90 a ——. *Beef*, mess, bbl. 10.00 a 10.50; cargo No. 1 8.50 a 9.00; No. 2, 6.50 a 6.70. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, 6. a .7; skimmed milk, 3. a .5. *Flour*, Baltimore Howard-st. 5.50 a 5.75; Genesee, 5.37 a 5.75; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .46 a 55; Rye, .65 a .67; Barley .60 a .65; Oats .40 a 42. *Hogs'-Lard*, 1st sort, new, lb. 11.50 a 12. *Pork*, clear, bbl. 19 a 20; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.50. *Seeds*, Herd's Grass, bushel, 2.00 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .33 a. 38; White Honeysuckle Clover, — a .33; Red do. Northern, 7 a 8; French Sugar Beet ——; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .50 a 55; do. do unwashed, .30 a .35; do. three-fourths, washed, .42 *a* .45, do. half blood, .38 *a* .42; do. quarter, washed, .35 *a* .40; Native, washed .35 a .37; Pulled, Lambs', 1st sort, .— a 50; do. 2d sort, .38 a .42; do. Spinning, 1st sort, — a .40.

Prices Current in New York, August 14.

Bees-wax, yellow .20 a 22. *Cotton*, New Orleans .10½ a .13½; Upland, .10 a .12; Alabama, .10 a .12½. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .17. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 5.00 a ——; Canal 5.12½ a 5.50; Balt. Howard st. —— a 5.25; Richmond city mills, —— country, —— a 4.87½; Alexand'a, 5 a 5.12½ Fredericksburg 4.87½ a —— Petersburg, 5.00 a ——; Rye Flour, 3.37½ a 3.50; Indian Meal, per bbl. 2.75 a —— per hd 13.00 a 14.00. *Grain*, Wheat, North, —— a ——; Vir. 1.00 a 1.04; Rye, North, a 68 —; Corn, Yel. Nor. .58 a 60; Barley, — a — Oats, South and North, .31 a .38; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 10.00; prime a 6.25 a 6.75; cargo —— a —— Butter, N. York, 12½ a 15; shipping, 8 a 10; Lard, .10 a .11; Pork, mess bbl. 13.50 a 14.50; prime 9.75 a 10.00; cargo ——.

Prices Current in Charleston, August 9.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 23. Upland, inferior and common .9 a .10, fair to good, .10 a 10½, prime to choice, .10¾ a .11 5-8. *Rice*, prime, $2¼ a .2½, inferior to good, do. $1.87½ a .2.12½. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5.00 a .5.50. *Corn*, North Carolina, .— a —.; Maryland, .45 a .50. *Oats*, .37 a .—; Peas, 65, sales. *Hay*, prime Northern, .80 a 85. *Whiskey*, Philadelphia and Baltimore, hhds. .25 a .——; bbls. 26 a 27; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork*, Mess. .14 a 14½; Prime, .— a .11, scarce. *Bacon*, .7 a .— cents; Hams, .8½ a 9; Lard, — a 9. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

CABBAGE SEEDS.

Received by the late arrivals from England, my usual supply of first rate Cabbage Seeds.

To those who in former years have bought seeds of me, I only need say these are the production of the same gentleman who has supplied me these last fourteen years with such very excellent seeds. To those unacquainted with them, I would observe, these seeds are raised by one of the first botanic gardeners in the neighbourhood of London, and are of exceedingly approved kinds and quality. It is a fact well known to every experienced gardener, that European Garden Seeds, especially Cabbage, Cauliflower, Broccoli, early Radish seeds, &c. &c. produce incomparably better crops than can be obtained from seeds raised in this country.

In confirmation of the above, I will here subjoin a copy of a certificate that was given to me six years since, for insertion in the American Farmer, by some of the most respectable gardeners of the Baltimore market, who still continue to purchase and sow these seeds.

Baltimore, July 14, 1824.

We, the undersigned, hereby certify that the cabbage seeds called Early George, Bullock's Heart, Early York, and Early Wellington, which are imported and sold by Samuel Ault, are of the very best quality; having made use of them ourselves for several years, we pronounce them early and genuine, likewise very hardy in standing the winter. As witness our hands,

JOHN MYCROFT,
THOMAS LEWIS,
EDMUND EVINS,
PETER HATMAN,
SAMUEL REGISTER,
VALENTINE LUTZ.

The price of the above seed is 37½ cents per ounce, or $1.00 per pound. The ounce will yield upwards of 2000 fine cabbages. The time to sow these seeds is from the 10th to the 25th September. Printed directions respecting the proper soil, treatment and cultivation of these cabbages will be given gratis with each parcel of seed. Orders, with remittance, from all parts of the United States, (postage paid,) will be promptly attended to, if directed to "Samuel Ault, No 78 Bridge street, Baltimore." I have likewise, Drum Head, Flat Dutch, Green Dutch Cabbage, Savoy, Early Harvest, and Early Screw Cabbage seeds. Also, Cauliflower, Broccoli, and Radish seeds of all kinds, warranted first quality. SAMUEL AULT.

ON HAND, for sale, Orchard and Herds GRASS SEED, of superior quality. J. S. EASTMAN,
No. 36 west Pratt street.

ALMANAC.

1830. August.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 21	5	17	6	43	13	26	8	35
Sunday,...... 22	5	18	6	42	13	24	9	14
Monday,...... 23	5	20	6	40	13	20	9	50
Tuesday,.... 24	5	21	6	39	13	18	10	15
Wednesday, 25	5	23	6	37	13	14	10	55
Thursday,... 26	5	24	6	36	13	12	11	30
Friday,....... 27	5	26	6	34	13	08	morn.	

Moon—First Quarter—26th, 4h. 31m.—Morn.

BALTIMORE PRICES CURRENT.

Baltimore Markets.—A small reduction will be noticed in the prices of flour and grain. The wagon price of Howard street has receded to $5 a 5.12½. The retail demand is nearly or quite equal to the supply of Howard street flour. Beef continues very dull, and we cannot hear of any sales at prices above our quotation, although it is supposed small lots of very superior quality might command $4.75.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow-16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a, 28 00—St. Domingo, 8.00 a 15.00. The inspections of the week are 298 hhds Maryland, 31 hhds. Ohio; total 329 hhds.

Flour—best white wheat family, $5.75 *a* 6.25—super. Howard-street 5.31—city mills, 4.75 *a* 5.00—Susquehanna, ——; Corn Meal, bbl. 2.25——Grain; best red wheat, new 91 a 92;—best white do. new 95 a 97 common red 85 *a* .90——Corn, white, .45 *a* .46 yellow .45 *a* .46—-Rye, .— *a* .46——Oats, .25 *a* .26 Beans, .90 *a* 1.00-Peas, .50 *a*. 60-Clover seed, 3¾ .*a* 4. Timothy, 2.50 *a* ———Orchard Grass, 1.50 *a* 1.75—Herd's, .75 *a* 1.25—Lucerne 30 *a* 37½ lb.—Barley,-Flaxseed, 100--Cotton, Vir. 9½ *a* 10½--Lou. 11½ *a* 12½—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .9½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .24 *a* .24½; in bbls 25 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $210 *a* —; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, 5.75, No. 2, 5.00 *a* 5.25-No. 3 3.25 *a* 3.75--Bacon, hams, Balt. cured, .9½ *a* .10—-Feathers, .— *a* 35—Plaster Paris, cargo price per ton, 4 12½ *a* -ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 3.50 *a* 4 50—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

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AGRICULTURE.

A Report of the Committee of the Agricultural Society of Albemarle, on Farms, made to the Society at their Show and Fair, the 21st October, 1828.

(Concluded from p. 178.)

Communication to the Judges referred to in the preceding Answers.

The undersigned, reports to the judges appointed by the Agricultural Society of Albemarle, to examine and report on the farms offered for premium, that he had been in possession of that part of the farm offered for the premium, known as Pen Park, eleven years; and of that part lying on the east side of the river and called Franklin, eight years. The first, or Pen Park, had been entirely exhausted for many years. As evidence of this fact, it was leased to a friend of mine in 1803, with several hands, for less than the hands would have hired for without the farm; and such was its extreme poverty at that time, that, although the lessee cultivated only the best parts of it, he was never able, although an industrious, managing Dutchman and a good farmer of the day, to raise more than three bushels of wheat to the acre. So well known was the character of the farm for poverty, that, although the mansion house was much better than is usual on lands offered either for sale or lease; yet, for several years neither purchaser or tenant could be found, and for some time, it lay out as a common. The recollection of some of you, gentlemen, who have known the farm as long, or longer than I have, might supercede the necessity of further particulars on this subject. I will, however, mention a conversation that occurred very soon after I made the purchase, between myself and one of my neighbors, who had been partly raised on the farm, and himself a judicious manager. "Well, I am told you have purchased the Park." "I have."* "Do you ever expect to make a farm of it?" "I am going to try." "If you ever do, I will agree that I am no judge of land. It is impossible. I admit there is a part of it that you may improve; but there is a great part of the land, that has no foundation, was always poor, and can never be made rich." A gentleman who had lived on the farm more than thirty years ago, on seeing it last summer, remarked to me, "Sir, you have not improved this farm, you have created it."

I will here mention to the committee that I never have had funds in hand. I have not only gone in debt for the land, but have had to get hands and stock from the proceeds of the land; which circumstance has certainly prevented me from improving as fast as I otherwise should have done.

When I purchased this farm there was only a temporary fence around the open land, and nothing like a rail or cross fence upon any other part of it. A barn standing upon eight tottering blocks, the hull of a large house, without either glass, plaistering, or paint, —these, with a dilapidated dairy and a few wretched negro cabins constituted the improvements.

This being the general coodition of the farm when I became the purchaser, it was my first object to get it laid off into four fields, or shifts. Its situation not admitting of the fifth shift, I was compelled to substitute that from some other part of my land, as I am never willing to cultivate a field in corn more than once in five years. But I was compelled to depart even from this order in the first round that I took, as in all the fields there was a large proportion of the land that was not worth cultivating in corn; indeed there are small parts of two of the fields that have never been cultivated in corn yet. My rotation is, No. 1, corn, seeded down with wheat, rye, or oats, and with clover the last of March, or the first of April. No. 2, fallowed for wheat, and sowed down in clover in like manner the second year. No. 3, in corn, and sowed down in like manner. No. 4, fallowed and sowed down in like manner the third year. No. 5, in corn, and No. 1 in fallow. As I never fallow until after harvest, I have seldom found it necessary to sow clover in my fallow land; indeed, I have several times had my land well taken with clover after being cultivated in corn, and some of the thickest and most regular clover I had this season, was after a crop of corn. Thus you will observe each field gets two entire years rest in five, which, under a good cover of clover, and a bushel of plaister to the acre, with as much manure as the farm will produce, converting every thing susceptible of it into manure, and taking great care to get the whole on the ground before it goes through the fermentation if possible, gives a good assurance of considerable improvement. During the summer I seldom move the manure out of the stable, until the cart is ready to haul it out; and during the hot weather I prefer to have it ploughed in immediately.

That part of the farm lying on the east side of the Rivanna, of which I have been in possession eight or nine years, is divided into six fields of very unequal size. Two causes render this unequal division necessary. One is, the irregular meanders of the river on one side of the farm, while it is divided in two by a public road running directly through it: the other is, the running the fences in the valleys, that horizontal ploughing may be more perfectly done; so important in our hilly lands for their improvement, and for the greater expedition and facility of ploughing deep. And I am decidedly of opinion, that our deeper ploughing is one great cause of the advancement in agricultural improvement of this county, beyond some of those adjoining. I believe there is no one among us, at this day, who is not satisfied that the deeper he ploughs, the more his land is improved. How different from the state of things twenty years ago! when, nineteen out of twenty of the old settlers thought it would ruin the land. I have been asked the question very often, if I was not afraid of injuring the land by ploughing so deep; so far from it, I am disposed to consider this as a principal cause of its improvement. There is nothing in which I am more particular, than in seeing that my ploughing is well done—and my constant directions to my ploughmen are never to fear ploughing too deep, if the horses can pull the plough. I still prefer the old barshare plough to any other I have ever used; considering it superior both in durability, and the ease with which it works both to man and horse.

I have now a plough of this description which has been in constant use for eight years, while I have never been able to procure any other kind that will last me two years. The great objection to the M'Cormick plough, is, that it has not strength enough for our rough lands.

It was my practice some years ago to break all my lands with four horses, but from the great disadvantage in turning and ploughing round the hill with four horses, I now work three horses only, which I think are as few as can possibly do the work well.

My long and constant practice has been to raise every thing on the farm for its support; say horses, hogs, cattle and sheep—I have on my different farms, thirty-six head of horses; thirty-two of which I have raised myself. I not only find it more convenient to raise than to purchase, but the horses are really more valuable; and it is much more convenient to sell a horse now and then, than to purchase one, when I have not the money to pay for it. Every farmer certainly has it in his power to raise his own horses. Some of the best horses I have ever owned were raised until they were fit for work, without having eaten one barrel of corn or grain of any kind. I have no doubt it will be found to be the interest of every farmer to feed all the provender he raises on the farm, to his own stock in preference to selling it; and that the farm will be much more benefited by it. I have also endeavoured to manufacture as much of the clothing necessary for the use of the family, (black and white,) as possible, from materials raised on the farm; say wool, flax and hemp, the cotton yarn being purchased in preference to spinning it.

I must be excused by the committee from stating any precise amount of the nett proceeds of the farm now offered for premium, having always, without distinction, blended together the crops from my different farms: nor am I able to say precisely what force I work on these farms—it is not, however, less than eighteen steady hands, men and women, with the addition of four or five boatmen during the season that boats are not running.

As far as I am able, I will now proceed to give a statement of my two last crops, commencing with the field No. 3, at Franklin. The crop of 1827, was seven hundred and fifty bushels of Lawler wheat, from less than thirty acres. The house, yard, and garden, stand in the middle of the field, and must occupy more than one acre. My crop of the last year from the same farm, field No. 1, containing ninety-one acres, produced twelve hundred and fifty bushels. This crop was very much injured by the rust, none of the wheat weighing more than fifty-seven pounds to the measured bushel. Ten or twelve acres of this field also were very poor, having been entirely gullied when I purchased the land; and this was the first crop made from it. My crop of wheat, rye, and oats, from the field No. 1, on the Park farm, was—wheat, four hundred and fifty bushels; rye, four hundred bushels; and, oats, five hundred bushels. This was after a very heavy crop of corn the preceding year. On this same field the present year, I have cut more than one hundred thousand weight of clover hay, from less than half the field, not having cut any except where the clover was very heavy. My constant care has been to keep every part of my land covered with clover, and I believe you will not, at this time find one acre of my land not under cultivation, that is not pretty well covered with clover, nor is there a single acre of gullied or galled land that has not been brought under cultivation. I must here mention, what should perhaps more properly have been mentioned before, my plan of improving this kind of land, of which I have had a great deal to manage. I have always made it a point to haul as much of my straw back into the fields, as I could conveniently spare from the use of my stock during the winter, and to cover these galls or sores about twelve or fifteen inches deep, in return loads while threshing. In this way I get at least one half of my wheat straw hauled back into the field, scarcely missing the time required for the operation; and I believe the straw thus spread upon land of this description will be much more beneficial than in any other way.

My general method of manuring, which I know is different from the usual practice, and at variance with the opinions of our most judicious farmers, is to commence manuring in the poorest spot in the field, and proceeding on in this way from spot to spot until the manure is exhausted. By this mode I have got land that would not have produced any thing, in such heart, as to be ready to receive benefit from the use of clover, and plaister—otherwise, on these spots they might have been used in vain. Again, by this mode of improving, I have generally got my fields into an uniform condition of fertility. While none is rich, it is all in such heart that I seldom sow without reaping a pretty good crop: all which is respectfully submitted to the judges, by JOHN H. CRAVEN.

D.

Answers to the questions propounded to the candidates, for the premium offered for the best cultivated farm, by the Agricultural Society of Albemarle.

1st. There are nine hundred acres in my tract; about four hundred acres are cleared.

2d. It is divided into five fields, from sixty to one hundred acres each.

3d. The fields are cultivated regularly in corn, wheat, and clover; except that a part of the larger fields is put in tobacco; and about half the field intended for fallow, is left unploughed.

4th. The fallowing for wheat is done after harvest; about the 20th of September, the land is harrowed over, the wheat sown, and harrowed in by the first of October: when the seeding in corn land commences. This is prepared by cutting off the stalks and removing them, and running a single horse plough once, immediately in the row, which ploughs up the corn stubble. A large harrow is then run across the rows to level the surface, the wheat sown and put in with little Carey ploughs: a harrow or bush completes the operation, which generally terminates by the last of October.

Oats are sown on corn land about the last of February and first of March; clover, a little earlier. Rye, is not cultivated.

5th. Corn, is cultivated only on clover land, which is ploughed as early after seeding wheat as practicable, harrowed over in March, and listed horizontally five feet apart. The lists are opened with a coulter, and the corn planted as early in April as practicable, four or five grains in a hill, from two to three feet apart. As soon as the corn comes up, a coulter is run twice on each side of the row; the same operation is repeated with ploughs and the corn thinned to one stalk in the hill, as soon as its size will permit. After weeding, the whole interval between the rows is ploughed once or twice, before, or immediately after harvest. In planting, and every subsequent operation, the richest parts of the field are worked first, and generally about half laid by before harvest; immediately after which, the bushes, weeds, and grass are chopped out with hoes.

6th. Wheat is sown from five pecks to two bushels per acre, thicker on more fertile land, and that seeded later in the season. On fallowed land there is some allowance made for seed not buried by the harrow. It is not the object to sow that quantity which will bring the heaviest crop of a good year, but to make the crop less liable to be injured by the fly, frost and rust, (as it will ripen earlier when sown thick,) guarding against any material injury from too thick seeding in dry years.

7th. The purple straw wheat has been found most productive. The best grain is selected for seed, and cleared of the cockle by using a sand sieve to the fan, nearly as large as the sand board.

8th. The cradle is used entirely for gathering small grain, as being much the most expeditious; particularly, where hands are unaccustomed to the sickle.

9th. At the commencement of my operations, the average product per acre, was about two and a half barrels of corn, and seven bushels of wheat. It is now, about four or five barrels of corn, and twelve bushels of wheat.

10th. There are eleven labourers on the farm, viz: seven men, three boys, and one woman: day labourers are scarcely ever employed.

11th. The number of work horses is five, and almost exclusively for the plough; of oxen, six, used for hauling with the cart or wagon. These have been all raised on the farm, and two of the work horses: also, four saddle horses of fine blood, which promise more profit than any other stock.

12th. The horses are fed on clover-hay, corn and oats, ground or not, according to circumstances, and cut oatstraw; oxen on the same, with top fodder or shucks, but depend principally on grazing in summer.

13th. The McCormick plough is preferred as doing the best work, of the lightest draught, easiest kept in order, and cheapest in the end. Rhodes's hill-side plough is used on steep land, where we cannot get around the hill, and for single horses, Carey ploughs with a long wing and no mould-board.

14th. The horned cattle are 33 in number, 6 work oxen, 5 milch cows, a bull, 20 young cattle and two horses: more than should be on the farm.

15th. Hogs and pigs on the farm amount to 60 at this time, about 25 of which are for pork this fall. They are kept on the field intended for corn all the winter, and until the corn is planted, then turned in the woods until the clover blooms, when they are put on it, and remain until the wheat is removed from the fields, where they enjoy the advantage of gleaning until the rains in September, when they are again placed in the field intended for corn. They are fed partially with corn all the year, except when in the grain fields, and are prevented from rooting in the summer, by cutting off the ends of their noses. Of sheep the number is 48. They are kept during the early part of winter on the field intended for corn, and when they commence having lambs, removed into the standing pasture, or put on clover more than one year old, where they remain until the field intended for grazing is in bloom, when they are put into it, and removed with the other stock into the grain field. But they are not suffered on any account to remain on the young clover in the fall, winter, or early part of spring, as they would entirely destroy it by eating out the bud.

16th. The horned cattle are penned during summer on some poor spot, (if convenient) in the field to be cultivated the same, or ensuing year. The bench fences used by Mr. Rogers are certainly a great improvement: but not yet adopted.

17th. The wheat straw from about 1000 bushels of wheat, most of the cornstalks from about 250 bbls. of corn, and all the other forage including about 30 tons of clover hay, are converted into manure in the stable, and permanent farm pens. The quantity has been ascertained. Most of it is applied on tobacco land, the balance on the poor spots when ploughed for wheat, oats or corn. It is considered most judiciously used where applied to wheat or oats, for the improvement of land.

18th. My experience has confirmed the general opinion of the utility of plaster of Paris, particularly when sown on clover, in March or April about one bushel per acre, or used with seed corn in planting.

19th. From 20 to 40 tons of clover hay are cut on the farm, averaging from 1 to 3 tons, per acre. The process of curing is to suffer it to remain in swath about 24 hours, when wind rows are formed by turning two swaths together; after six or eight hours sun, it is put up in very small cocks, and in a day or more is ready for the rick, which is covered with wheat straw about a foot thick, this is confined by small poles tied together at the ends, and placed across the top about three feet apart. As the clover hay will not stand wet weather in cocks, it is all important to have it secured in ricks as soon as possible. When to be used, a part of the rick is cut off with a hay-knife, an instrument indispensable to every farmer.

20th. The clover seed necessary for the farm, is cut with grass scythes.

21st. No other resources have been resorted to for the improvement of the farm than those it has furnished, except two or three tons of plaister used annually.

22nd. In the management of negroes, the principles have been to unite humanity with discipline, and combine rewards with punishments. The details have been entrusted to an overseer. From 70,000 to 80,000 hills of tobacco are cultivated on the farm, the greater portion on new ground.

Wm. H. Meriwether.

E.

I hope in this communication to embrace all the questions propounded by the committee of the Agricultural Society of Albemarle, to the candidates for the premium offered for the best cultivated farm.

I purchased the farm on which I reside in the year 1810. It had been cultivated previous to that time according to the three shifts ruinous system, and had been closely grazed, and large crops of corn yearly tended on it. These causes, each in itself destructive, had rendered some parts of the farm gullied and a considerable portion of it besides, so impoverished as to be thrown out as unfit for cultivation. Its yield at that time was not more than about an average of three barrels of corn, and from eight to ten bushels of wheat per acre. I had then much to learn, and at once adopted the five shift system, which gives a rotation of wheat, corn, wheat, clover, clover, and pursued it for some time without the success in improvement desired. Experience taught me its disadvantages, and proved it to be a very slow way of improving, although every effort was made to raise all the manure possible, and to apply it in the most judicious way. The three successive crops of wheat, corn, wheat, produced too great exhaustion; the last wheat crop reducing the land almost back to the state it was in, previous to the turning in the clover and manure for the first wheat crop, besides the constant liability to washing on high land, arising from leaving the land after the first wheat crop, light, naked, or only covered with a thin stubble. For these reasons I abandoned it, and have since adopted and pursued the six shift system, which gives the rotation of corn, wheat, clover, clover, the improvement on this plan has been rapid, far superior to what it was with five shifts. The advantage of manures is clearly discovered and encourages to greater diligence in procuring and applying them. I now, as formerly, but more cheerfully, make all possible use of them. All the cornstalks, part of the straw, and all the other rough produce of the farm are converted into manure in my farm pens, which are situated near the barn and furnished with permanent shelters of plank, having a stream of water running through them in troughs. The area of each pen, is leveled and elevated a little on the borders, so as to retain as much of the liquid as possible. Of the quantity raised I can form no estimate. It is almost exclusively applied to the poorer spots of the field, which I fallow for wheat immediately before the land is ploughed and very regularly distributed. I use plaister freely, a proof of the high estimation in which I hold it; sow it early in the spring at the rate of from four to five pecks per acre on clover, and roll all my seed corn with as much as can be made to adhere. With the aid of plaster, I make as much clover hay as I think necessary for the use of the farm, say from 50 to 100 tons, the balance is suffered to remain on the land to cover and improve it. The close grazing practised by many farmers is destructive of improvement and counteracts the benefit derived from plaster.—How can it be otherwise, when the land after the application, yielded a generous return, has its whole crop of grass or clover either cut or grazed off—a crop which would materially benefit the land by laying on it. Indeed, I consider it as well to dispense with plaster altogether, as to have its good effects destroyed by a plan so ruinous. My clover is cut when a portion of the heads commence turning brown, is cured in the usual way, and stacked in ricks thatched with straw, or put in houses. A large quantity of my straw is hauled and spread (generally on stubble fields) so thinly as not to check the growth of vegetation, and regularly on the poorest parts of the fields. This I consider to be so valuable a mode of improving, that I might be justified in using very strong terms in speaking of its importance. It forms an admirable cover for the land—it protects the young clover, encourages and fosters the growth of all kinds of vegetables. I also improve much by penning my stock on the poorest parts of my fields. The mode of penning is, I suppose somewhat new. I have poles cut and bushed, of about six inches diameter and 18 or 20 feet long. In each of these, two legs are inserted on one side and three on the other, so as to form a kind of bench, four and a half feet high. On the side of three legs, laths sawed about three by one inch are nailed to the legs about a foot apart. The benches thus prepared are put end to end, three or four or more according to the number of stock penned, and placed so as to form a square, the laths nailed on, be ing on the outside. The area of the pen is then covered with straw. The convenience of this pen will readily be discovered, as the pens require moving every eight or ten days. Two men and a boy may easily raise the benches and alter their position in fifteen or twenty minutes. If it is necessary to move them to a distance, the two legs on one side (having been put in without wedging) may easily be taken out, the benches put in a wagon and conveyed to the spot selected, when the legs may soon be replaced, and the benches set up. One of the benches is about eight feet long, so as to be more easily moved than the rest, in order to form a convenient entrance into the pen. The above mentioned rotation and use of manure, with the mode of cultivation, soon to be described, have produced all the results ascertained; some idea of which may be formed by stating that the waste land has all been reclaimed, there is not a gully or gullied spot to be seen, and a yield safely calculated on, of from six, to eight barrels of corn, and from twenty to twenty-five bushels of wheat, per acre, on an average. Cloverton, (the farm on which I reside,) contains about 800 acres nearly all enclosed, 300 woods and 500 cleared; the cleared land is divided into six fields averaging about eighty acres each, varying a little in size—there are besides a few grass lots. The mode of cultivation is as follows—my corn is planted from the 5th to the 15th of April on clover land, not closely grazed. The preparation is made in the fall or before the winter sets in, by first laying off rows with a coulter, six feet apart, then running a coulter furrow on each side of the rows laid off, so as to have three furrows together, to be covered by a list—this should be done very deep in order to have the ground well broke; then with a large two or three horse plough a furrow is run on each side of the three coulter furrows, barely making them meet: there will then be three surfaces thrown together where the corn is to be planted, and a good portion of vegetable matter covered, which fermenting about the time the young corn gets above the ground adds materially to its vigour and growth. In the spring I cause a small harrow to be run lengthwise on the lists, which are afterwards opened with a shovel plough, and corn dropped four or five grains together, from three to three and a half feet apart. The intervals are then broken up as deep as possible with the coulter; they remain in this condition until the clover growing in them blossoms. The clover is hindered from flourishing by the coultering and almost effectually secures the corn from destruction by the worm; that insect feeding on the clover until the corn is out of danger of its depredations. As soon as the corn is of suitable size, it is thinned to two stalks in a place, and wed with a hoe, or sometimes a small iron rake is used soon after a furrow is run, with a two horse plough, on each side of the list, throwing the earth to the corn, and wed with the hoe. When the clover is in bloom, as stated above, the whole of the intervals are broken up with a two horse plough, turning the clover as well under as possible. It is then run over with a cultivator or harrow: it may be necessary to run the cultivator over again just before or after harvest to keep it clean for seeding.

I have been thus particular, as I think it very important that corn should be cultivated on clover, and not on stubble land. Independent of other advantages, such as prevention from washing and exhaustion, after the land has been well covered with clover and 2 or 3 crops well seeded, and turned in, there will be no more necessity of sowing. Corn land cultivated in this way will be a good preparation for a wheat crop, and will yield nearly as much as that on fallow. My time of sowing wheat is from the 20th of September, to the 15th of October. The preparation is made by breaking up the ground after harvest with a three horse plough, (the coulter is used when the ground has been rendered hard by dry weather) then harrowing, sowing the wheat, and harrowing it in, provided there be moisture enough, otherwise, ploughing it in with small ploughs. The greater part of my corn land is sown in wheat, the balance generally in rye. This is done if the ground is foul, by first breaking it up with a two horse plough and harrowing in the grain, or if not foul, by ploughing it in with the one horse plough. I sow but few oats, and those on corn land the last of February or first of March, clover seed about the same time. It may be as well to remark here that I consider the white flint and purple straw wheat most productive, and that I have always been very particular in selecting the best of the product of each crop for seed. Also, that in securing the wheat crop, I have about half of it cut with the sickle on account of not being able to work to advantage where it is rank. Even where it is rank and standing up, my hands having been well practised, secure nearly as much in a day as they can with the cradle. The labourers employed on my farm amount to twelve men, two boys and two women, except a few small boys which render as yet but little service. I seldom ever hire, even in time of harvest, any day labourers. In addition to this force, I work six mules, four horses and eight oxen; two riding horses are also used. All the resources for its improvement, have been furnished by my farm, with the application of this force—a force which has expended a considerable portion of its time and labour in clearing up and improving a small farm purchased some years ago on an adjacent mountain, and which is intended for a grazing farm. To feed and clothe my labouring hands well, to keep them in good, dry and comfortable houses, warm in winter, and airy in summer; to be careful not to have them exposed in bad weather, I consider to be the dictate not only of humanity, but of the strictest economy. I hope this remark will be attended to. Working negroes in wet and very cold weather, affording them low, contracted huts, argues, to say nothing worse, a defective judgment, and a narrow and mistaken policy. Those who pursue this plan will find their hands in good weather confined by diseases, which have originated from exposure in bad. I prefer mules to horses, when they can be got of good size; considering them longer lived, much hardier, and requiring much less food; particularly grain. My horses as well as mules are principally fed on clover hay for rack food; on ground rye, mixed with rye straw, or clover hay cut at all feeding times, except in the morning, with about four or five ears of corn previously soaked 24 hours in brine.—The oxen in summer are chiefly fed on grass or hay; at twelve o'clock in the day, they have a good feed of chopped grain with cut straw or hay; in the winter, short corn with hay or top fodder. My sheep, about forty in number, are seldom fed, having good pasturage; about the time of yeaning, and when there is snow, they have some meal and blade fodder. My hogs are kept during the winter and spring in a woodland pasture until the clover blooms, when, their noses being cut, they are turned into the clover field and fed with one or two ears of corn each per day; after harvest they are turned into the grain fields, where they remain until those fields are gleaned, when they are again turned into the clover fields. With respect to ploughs, I use the M'Cormick, Carey, and Barshare. I think them all good. I would prefer the M'Cormick, if it had more elevation in the throat, so as to avoid choaking in rank clover. My average crops are about 3000 bushels of wheat, 500 barrels of corn, 3 or 400 bushels of rye, and 4 or 5 hogsheads of tobacco. The amount of sales from my farm in 1827, was about three thousand seven hundred and fifty dollars; in 1828, four thousand five hundred dollars.

The variety of particulars necessarily embraced in this communication, has deterred me from enlarging as much on some of them as I could wish. I am unwilling to be tedious, and shall therefore refrain from giving so fully as otherwise I might, my views, even if they could be of any avail, on the advantages and disadvantages of the different shifts and rotations of crops in general use. I believe there is much to be said on this subject; I will, however add, that, having lately purchased a farm adjoining to Cloverton, containing near 300 acres, a considerable part of which is cleared, I shall change to the seven shift system, believing that preferable to the six; the latter plan allowing the first clover crop to stand only one year before it is turned in for wheat; whereas the former allows it to stand two years, which ought always to be the case, and the rotation will then be corn, wheat, clover, clover, wheat, clover, clover. I know there are objections to such a number of shifts, arising from the impression of too great a portion of land lying out of cultivation; but the strictest attention and long experience have convinced me that those prejudices are ill-founded and that taking ten or fifteen years together, independent of the improvement, much greater profits will be realized by the seven, than the six shifts. My confidence in this plan is such that nothing now will ever induce an abandonment of it: unless the blue grass should increase so as to injure the wheat and clover very materially. JOHN ROGERS.

HORTICULTURE.

CULTURE OF GRAPES.

J. S. SKINNER, Esq. *August 7th*, 1830.

I avail myself of the permission given me, to send for publication in your invaluable journal, the enclosed extract of a letter from Mr. Herbemont, embracing some very interesting topics. Others, no doubt, in common with myself, always peruse with much pleasure and instruction whatever proceeds from such an intelligent source; and the important subjects discussed in this letter, will, it is hoped, attract the attention of all whom they may concern.

In connection with one of these subjects, I would here take occasion to say one word. I have from time to time, read with great interest the notices of American grapes, published in your paper from Mr. Prince's forthcoming treatise on the Culture of the Vine. The sanction of his respectable name is justly regarded as high authority for whatever he may advance; but as I have for sometime been convinced he has fallen into one error in his account of the Scuppernong grape, I would respectfully call his attention to it again, and request him to reconsider the opinion he has expressed. His assertion that the Scuppernong is a dioecious plant, is discredited so far as I have had any opportunity of judging; and I am credibly informed there is a single vine in a neighboring city which annually bears good crops, and which must necessarily be removed a considerable distance beyond the supposed influence of the fecundating dust of any other vine of the same species. If this is an error, it is obviously of much moment that it be corrected; on the contrary, if it is a fact, it should be established beyond all doubt. —— S.

Columbia, S. C. July 24th, 1830.

I am well pleased to see that you enter fully into my views, as to the advantages of having the names of the grapes and other fruits, by which they are known in the countries where they are most cultivated; and also any and every thing which may be connected with them, such as the manner of their growth, the soil they thrive best in, the principal use they are put to, and, if it were possible, the country and the manner in which they originated as distinct varieties. All these things are very interesting to amateurs such as we are, but we cannot foretell to what extent such knowledge may be useful to the world. It is most desirable that some person of science and great industry, should become as enamoured of the subject as I am myself. I am now too old to acquire the science necessary to do justice to such a subject, and also to pursue it with the vigour it requires and fully deserves. It is particularly in a new country like this, where the subject may be said to be just entered into, that science may be practically introduced, and habits grounded upon it, formed even by the day-labourer, and successfully substituted for the many of the idle, superstitious and worse than useless observances and practices of the European cultivator and labourer. There, the task of weeding and rooting out all these superfluities and injurious fooleries is propably impracticable; and if we wait until they have been fully transplanted into our *virgin soil*, the world may bid adieu to the hopes of ever enjoying a rational, natural and scientific treatise on the culture of the grape and other fruits, that may be adopted and followed by the poor as well as the rich; the ignorant as well as the learned. I conceive this subject as worthy of the greatest efforts, not merely of individuals, but also of states, or at least of proper associations. The nomenclature is one branch of this science which is most defective. If it be not very soon corrected, and placed upon a rational and scientific basis, we cannot avoid being before long immersed into a chaotic confusion of unfit, absurd, ridiculous and unmeaning names, such as the eastern world is pestered with. We are already pretty well filled with difficulties of this kind, with our "English grapes," our "French grapes," our "Madeira grapes," &c. &c. By the first of these, are called all grapes not natives of America! By the next is understood, as a subdivision, those grapes that come from France, as if such a name was sufficient to distinguish the many hundred kinds and varieties known in that country! And by the third, it is meant I believe, to denominate those which are supposed to have been brought from that country, and are presumed to produce a wine at all resembling that made in the island of that name. Now these are no names at all: for by names I understand, appellations which serve to distinguish one individual from another. It is true that a person's name is frequently added to the epithet "Madeira," yet why should "Madeira" be added at all, particularly to such as have been produced from seed in this country? I have already a great many "Madeiras" besides that to which my name is sometimes affixed; such as "Bland's or Powell's Madeira," "Maverick's Madeira," "Holmes's Madeira," "Baker's Madeira," "Rapp's Madeira," &c. I do not object to the persons names, on the contrary, I think it only a just tribute to the cares and industry of an individual in benefiting the world with the introducing or originating new and valuable species of fruit, to give it his name. This is usually done in botany, sometimes as generic, and often as a specific name. Something similar to this might be adopted, and as every plant has two botanical names, one generic, the other specific; the different grapes might in a similar manner, have two also; one of which may be, if suitable, the name of the individual who first raised it from seed, introduced it into culture from the forests, or has been greatly instrumental in promoting its extensive culture; and the other, perhaps descriptive of some quality belonging particularly to it, and which may facilitate its recognition. Whenever it is practicable and proper, one of these names ought to be that by which particular grapes are most generally known in Europe, or wherever else they may come from.

I do not think that any dependence can be placed on the colour of the wood to ascertain that of the fruit. I have white grapes, the young wood of which is decidedly red, when dry as well as when growing; and some of the darkest grapes with grey bark.

However learned and truly valuable, European writings on the vine may be, they are not always to be implicitly credited, particularly as relates to the native vines of this country. Men of the first merit, relate sometimes on insufficient authority, as facts, that which is not true, and these things are repeated from one to another, on trust and without examination. As an example: all European authors state that the native vines of America are dioecious plants; that is, having plants with male flowers exclusively, and others with female flowers exclusively. This is not true; and so far as my knowledge has gone, I can assert that I never have seen a vine having exclusively female flowers, though there are many exclusively male. Although I cannot assert with equal certainty, that all the vines of Europe, &c. are like the American vines in this particular, I think it is very probable; and a few experiments which I have made seem to place this matter almost beyond a doubt; and this is, that vines raised from the seeds of grapes from the eastern world produce plants *perfectly similar to our own* in this particular; that is, a great majority of the plants thus raised have only male flowers; but all the others are fruitful vines, having flowers containing both the male and female parts. I have it from the very mouth of one of the best and most scientific writers on this subject in France: immediately after having left his house, I wrote in my note book as follows:—"Mr. ——— says, that the vine in America is either male or female, that none of them are hermaphrodite. Also that there is no natural white grape, and that any vine that produces white grapes is the effect of art and not of nature. I think Mr. ——— is in error in both cases." The first I have already shown is erroneous; and as to the other, every body knows that native white grapes are found in our woods, and the Scuppernong is a signal instance of it. I have also seen in Chester district in this state, a vine of the Bullace kind bearing grapes, some purple, some white, and others partly purple, and partly white. Now these may be sports of nature, for they certainly are not sports of art.

I must have expressed myself very obscurely in some of my preceding letters, or you must have misunderstood me, with regard to the "cork tree;" for I have not, and never had, one of them; and therefore cannot send you any of the acorns. One or two of them may do very well as objects of curiosity; but for usefulness we ought to have thousands of them. I know nothing which our public agents and navy officers could send to this country from the south of Europe, better than a considerable quantity of young "cork trees" properly packed, and also a quantity of their acorns or seeds. The latter to be of any service, ought to be packed in earth, fresh moss, &c. and sent, not to the north where all these kinds of things are usually sent, but to the southern states, where only they can grow and be useful. Unless this is done, I know not what we shall do in this country when it cultivates the vine largely, (which most undoubtedly will be the case, soon or late,) if we have no corks for our wine; and there is no substitute for it that I know of. This indispensable tree would grow most probably very well, all over these southern states, wherever our "blackjack oak" and other oaks do grow; but not being a very promising speculation, who will be at the trouble and expense of importing them? They will either be a very great public benefit, or a great desideratum for many years to come, unless they are introduced at the expense of government, or some societies.

N. Herbemont.

(From the New England Farmer.)

VEGETABLE PHYSIOLOGY.

Mr. Fessenden,—The following outlines of the Theory of Vegetable Physiology, were drawn up by Prof. *Lindley*, of the London University, from the writings of M. du Petit Thouars, and with some modifications, may be regarded as exhibiting a general view of the science in its present state. Every proposition abounds with matter for attentive consideration, and might serve as the theme for an interesting disquisition. As the result of the researches of one of the most acute observers and ingenious reasoners ever engaged in the investigation of this subject, it is worthy of a careful study; and as the season is approaching in which the operation of *budding* is usually performed, it may prove acceptable to many of your readers. Respectfully yours, W.

Salem, August 2, 1830.

1. The bud is the first visible moveable point of vegetation; one exists at the axilla of every leaf. It is *manifest* in the greater number of *dicotyledonous* plants and grasses. It is *latent* in *monocotyledonous* plants, in which it exists only as a vital point. The leaf, therefore, is to the bud what the flower is to the fruit and seed.

2. The bud is at first supported by the juices contained in the utricles of the interior vegetable substance or parenchyma. This is the operation by which the parenchyma is reduced to a state of *pith*. That part is therefore analogous to the cotyledon of the seed, or *seminal embryo*.

3. As soon as the bud is formed it is subject to two general movements. The one is a motion upwards, or an *aërial* motion. The other is a motion downwards, or a *terrestrial* motion. From the first proceeds the embryos of leaves, analogous to which is the plumuli; from the second proceeds the formation of the wood or bark, analogous to which is the radicle.

4. Each of these fibres is formed at the expense of the *cambium* or of the sap produced by the first fibres and deposited between the wood and bark. The fibres carry downwards the matter necessary for their own elongations, which matter is the *descending sap*

5. The development of the bud consists in the aërial or leafy elongation of these fibres; each of which, attracted by the leafy extremity, carries upward with it the matter necessary for its own elongation, which matter is the *ascending sap*.

6. From this sap are formed two general substances, the woody and the parenchymatous, (which were long ago recognized by Grew;) the woody is disposed in fibres, which undergo no change. The parenchymatous appears formed, in the outset, of detached particles which unite and form utricles; so that it assists in the process of increase in every direction. This is the only substance which is susceptible of a green color.

7. The sap is the food of plants. It is pumped up in the form of moisture by the roots, and it becomes exposed to the atmosphere in the leaves. In the first instance it has a common use; but finally it receives a particular destination according to the kinds of plants and their parts. It is only carried to the points when it is wanted, so that there is no universal circulation. Being composed principally of the two general substances, of which mention has been made, the woody and the parenchymatous, as soon as one of these is employed in the process of vegetation, it is necessary that the other should be disengaged and deposited in the vicinity; so that the application of one substance is the separation of the other.

(From the New England Farmer.)

DOUBLE FLOWERS.

As double flowers are unnatural and are considered accidental, or the result of some peculiar mode of cultivation, but which has ever been involved in mystery, I enclose an extract from the Annales de Horticulture, containing an account of a novel theory, which has been illustrated by successful experiments.

Although botanists consider double flowers as monsters, they are still much admired, and florists have been assiduous in their efforts to produce them. Numerous methods have been suggested to the cultivator, but as vague and unphilosophical, as the recipes of the alchymist, and with results, on experiment, equally unsatisfactory. If the process, which has succeeded so completely with the China Aster, should prove to be applicable to other flowers, an important and most interesting discovery has been made in the economy of the vegetable kingdom. To ascertain this, experiments must be multiplied on a great variety of ornamental plants, and they are worthy the attention of all, who are zealous to extend the delightful domain of Floriculture.

With sincere esteem, your most ob'ent servant,
H. A. S. Dearborn

Brinley Place, Roxbury, July 26, 1830.

EXTRACT NO. XIX.

(From the Annales D' Horticulture.)

Method of obtaining Reines Marquerites, Aster Chinensis, with double flowers, from the seeds produced by Reines Marquerites, with single flowers; by M. Poiteau.

In collecting the seeds of the China Aster, it is the general custom to give a preference to those of the superior flowers, as they are larger and better nourished; and this choice is founded on the belief, that the double flowers are the result of an augmentation of vigor, and of a more considerable development in the plants which produce them.

It is very natural, indeed, that cultivators should attribute the cause of double flowers to a more considerable development, because they very often see, that the plants, whose flowers are double, also become more vigorous, than those of the same species which produce single flowers. They also see that double flowers become single, when their culture is neglected, or when they are abandoned entirely to the care of nature.

Notwithstanding, a contrary doctrine has been maintained, by some of the learned, within fifteen or twenty years: Bosc, participates in it, and he has endeavored to establish it in Detersville's *Cours d' Agriculture.* This doctrine consists in regarding the double flowers as the result of an impoverishment of the plants, instead of an augmentation of vigor and development. This is the principal argument adduced in its favor; *that all the substance of a double flower in a dried state, is less than that of the seed and its appendages which would have been produced, if the flower had not become double.*

I shall not attempt to urge the objections which might be raised to this doctrine; but the fact which I am about to state is favorable to it.

In 1786, having in my garden only single China Asters, a curate of the neighborhood desired me to give him some seeds; I did so; he planted them and obtained only single flowers; but I was much astonished, on visiting the curate the second year, to behold his China Asters all double, and of the greatest beauty. Presuming he had obtained his seeds elsewhere, I hastened to ascertain of whom he had procured them. The seeds, he replied, were collected from your China Asters, which have produced these beautiful flowers. Still more astonished, I desired him to inform me how he had done it. "I have," he replied, "collected them only from the little heads of the inferior branches of the plants; it is necessary to have patience to do this, for these little heads do not all contain seeds, and most of them have but one or two." The same year I gathered only the seeds of the small heads of my plants and the year following they yielded magnificent double flowers.

This process, as has been seen, is not new, for it was known before 1786; nevertheless, I believe that many amateurs are ignorant of it. I publish it for the interest of Horticulture, and as a fact in support of the theory, which assigns, as the cause of double flowers an impoverishment in the plants which produce them.

The silk establishment begun by Mr. d'Homergue, in Philadelphia, is said to be doing even better than was anticipated. All that is wanting is plenty of cocoons. Reelers are learning the art successfully, and a good deal of beautiful silk has been already manufactured. No doubt is entertained of the complete success of this important enterprize. The atmosphere and the waters of this vicinity appear to be admirably adapted for it. The present season will prove by actual results, of which it is expected, the public will be enabled to judge, that silk may be rendered a new and lucrative staple for this country, hardly second to cotton in the facilities of its capital. Twenty years hence it may be as important an export as cotton.

[*Am. Sentinel.*

(From the New England Farmer.)

THE POTATO ONION.

This is indeed a very singular plant. The only one, I believe, that bears no kind of seed.—It resembles the Canada or Magic onion, which like this is viviparous, and like this has no sexual organs. The Magic onion produces its offspring along the side of the parent stalk, while the potato onion spontaneously brings forth a numerous progeny, from its matrix or bosom, below the surface of the ground.

When I began to propagate these roots, I found it extremely difficult to preserve them in a healthy state through the winter. A small degree of frost will kill or injure them very much, and if kept in a temperature above freezing, they vegetate, and so exhaust themselves, as to produce very little the next summer. For the last two years I have managed them differently and have had much better success. By the first of August, or as soon as the tops fall and wither, they should be taken out of the ground and after lying several days in the sun, should be put away in a dry place until October; they should then be re-set in the ground like tulips. The beds intended for them should be previously well wrought, and the plants set in rows about a foot apart. The small or young ones should be separated from the others, for these grow larger but produce no offspring the first year. Before the approach of winter some coarse litter may be spread over them, which should be removed in the spring—and they will vegetate early and produce a plentiful crop. Cultivated in this way I think this new plant a valuable acquisition, and well deserving a place in every garden. It is ripe early, and universally esteemed upon the table for its mild and agreeable flavor.

Florida, July 9, 1830. S. R.

RURAL ECONOMY.

POT-ASH.

Wake County, N. Carolina, August 5.

J. S. Skinner, Esq.

What is the reason, Mr. Editor, that the southern states have never undertaken the manufacture of "pot and pearl-ashes," abounding as they do in all the necessary material? If I have a correct idea of this manufacture, it may be thus simply illustrated. You take the common domestic ley, produced by leaching wood ashes from the hearth, and boiling this down in an ordinary kitchen iron pot, you will obtain a crude salt, and this presents a brown appearance, and is very acrid and corrosive; this is *pot-ash.*

Take that same product and place it upon a red hot iron plate, and incinerate it, as it were, and you whiten the before crude and brown salt, and upon the whole improve its appearance; this is "pearl-ash;" the article to be seen in apothecary establishments, and is often used by the bakers of bread. Both of these are valuable articles of commerce, and let us not admit that the only reason why we should not manufacture them is, that we "*never have heretofore.*" Of all reasons the most lame, the most jejune, the most paltry. The southern section of the Union abounds in every thing calculated to aggrandize a country. "Let us put forth our hands."

Utilis.

On Raising Calves, Management of Bees, &c

Extract of a letter from Gorham Parsons, Esq. to Rev. Gardener B. Perry.

Respecting the proper time and manner of weaning calves, I have considered if you intend raising the calf at the time it is calved, it is best to take it from the cow the day after, or not to exceed two days—unless the udder of the cow is swollen or hard, then it may require the process that nature points out for the calf, the forcible application of the head against the udder, which generally reduces the swelling and hard bunches; while either remain, I should not take away the calf. But supposing no difficulty of that kind, the calf should be taken from the cow the first day, or twelve hours after it is calved, then fed from a bucket, or small tub with two quarts of milk from the cow in the morning and evening, the finger held in the milk will very soon induce the calf to suck, and in a very short time he will drink the milk freely and readily. I have had a piece of leather (upper leather) sewed together of the size and in the form of a cow's teat, a small opening at top, the bottom so cut as when nailed to the bottom of a bucket or tub with three pump nails, the milk will pass under easily and flow to the orifice of the teat, the calf will soon press for it with as much earnestness as for that of his dam, and shortly he will be so impatient for his breakfast and supper, that the process of sucking will be too tedious, and he will drink freely—it will not be necessary to increase the quantity of milk beyond two quarts night and morning, but as he advances in size, add a little water, a pint at first and increase it, of the same warmth as the milk, to which add a gill of Indian meal which may be increased to a pint, although I prefer using double the quantity of wheat bran, and think it far better for milch cows than Indian meal—offer him second crop hay, (if before the season for grass) he will soon eat it, and may have skimmed milk soon substituted for new milk made warm with water, as milk direct from the cow.

When four or five weeks old he will eat grass and drink water, and be quite as large as if he had taken all the milk from the cow. The saving of milk will amply pay for the trouble, and the calf will not be stinted in size. I think we err in permitting calves to suck too much at first, even when intended for the butcher, they fat better by beginning moderately, and increasing gradually, as gorging is injurious to the brute creation as well as to the human race.

Let a man purchase an animal as prepared and presented at our cattle shows for premium, stuffed and pampered for the occasion, then let him feed fairly as a good farmer would and ought to feed, and before the next cattle show, the animal would be like the lean kine of Pharaoh. You see I differ from many good men as to the condition in which animals should be exhibited at our cattle shows—I do not mean the cattle as fatted for beef, although in that case I should lean to the farmer who presented well fatted beef at the least expense. I have thought it better to have rather small enclosures of grass for calves, and change them every two or three weeks. If the feed should be short or the flies so troublesome as to prevent their eating in the day time, feed with a quart of wheat bran or three pints per day—if no bran, a pint of Indian meal—some crusts of bread occasionally of which they soon become fond. I am fully of opinion calves should be so fed as to keep them in a growing state, but never gorged, or pampered. It frequently occurs that they require a very small piece of their tail cut off; the necessity is ascertained by pulling the tail, and if the bones are loose and the skin spongy, cutting is necessary; they are what farmers term *tail sick.* They should be provided with salt to lick when they please. I use the crude lump salt from Liverpool; my cattle of every description lick it freely. It is economy to use it, and I think it answers the purpose quite as well as white and granulated salt that is more expensive—you can see some of it at my farm in Byefield.

The age at which they should have their first calf does not appear to be settled, as I find farmers disagree, some preferring two years old past, or the month of June succeeding the spring when they were two years old, others three years old past—I am rather inclined to prefer the latter age, unless the calf grows rapidly, and has attained great size, and may be considered a forward animal. Never allow a heifer to calve till June; the very last of the month is preferable; they will then have a flow of nutritious grass feed, which will swell the udder, give health and strength, and unless a violent and cold rain storm no injury arises from calving in the pastures.—I have thought it best to use bows, straps, or stanchions, to tie them up as it is termed; the first fall they are brought to the barn, I have had practised, (and my father before me who was remarkably fond of them, and an excellent judge of their qualities) handling the udder almost every morning, when tied up, feeling the teats, and, if I may use the term, make believe milking, if done gently, it will save trouble, which frequently happens with heifers with the first calf.—I think I have known several spoiled for want of this attention, and were of no value as milch cows—requiring their legs tied, and were not milked well, becoming the terror of female and finally of male milkers.

I believe you will think full enough has been written on this subject, and that I may as well proceed to answer your inquiry respecting Mrs. Griffith's hive—I have never used one, but I have no doubt the manner of securing the bottom is a great improvement, as the eggs lodged by the bee moth can be daily cleared off; the suspending the hive I think an improvement, as it will only permit the assailant moth to attempt entrance at the threshold, and bees know them as an enemy, and will repulse them when they do not steal in at the back door. As to the top, when you are informed that I now have all the *hives* and *glasses* as described in Wildman's pamphlet, filled with honey, and can hardly admit Mrs. Griffith's an improvement, you will, I think, readily bear me out in my opinion.

GORHAM PARSONS.

LADIES' DEPARTMENT.

FEMALE HUMANITY.

Among the many instances of sudden prostration of the faculties which occurred so recently from the imprudent use of cold water, we may be permitted to particularize one at least; as it affords a most striking example of disinterested benevolence in a female, and worthy of all imitation by either sex. A man stopped at a pump in Pine street and took a hearty drink of cold water. By the time he reached the opposite side of the street he was seized with cramp, and all the horrid symptoms of approaching dissolution. He fell upon the pavement in dreadful agony, and a few persons soon collected around—but to all appearances nothing could be done. A lady who lived directly opposite observed the sufferer in his agony, and hastening to the scene of death immediately commenced the humane but apparently hopeless task of saving him. No physician was at hand—The sufferer was a poor labouring man, coarsely clad, was unknown to all who stood around, and received but little aid from them. Mrs. W———, however, alive to his desperate and awful situation, procured every possible remedy she could devise—mixed up and applied strong mustard plaisters with her own hands, rubbed him with spirits till the skin came off her hand, and with characteristic presence of mind directed one of the idle spectators to find a physician, who came, however, when his services were no longer required. All this took place in the open street—a crowd looking on—yet this amiable mother of a charming family shrunk not from the exposure to a rude assemblage of strangers, so intent was she in her efforts to save the life of a friendless fellow being. To crown her labours of humanity, SHE SUCCEEDED; but not until nearly two hours of unremitted personal fatigue had been encountered! She has now the proud satisfaction of knowing that to her efforts this man is indebted for his life; for in all human probability he would have been a corpse in half an hour.

Angels might look down with approving smiles upon this god-like spectacle; and if the records of the skies contain the good deeds done by mortals upon earth, this noble act may well stand first upon a page of blessed charities. If human honours could appreciate the spirit which incited the performer, where could our humane societies find a more worthy subject for their brightest medal? But reward of any kind never entered into her consideration. Like a worthy of the olden time, she may be truly said to be one who, in other cases of distress, can

"Do good by stealth, and blush to find it fame!"

[*Saturday Bulletin.*

The greatest beauty in female dress is that which is the most simple, and at the same time gracefully adapted to exhibit the natural beauty of the female form. This simplicity should be observed, even in color; a profusion of tawdry and glaring colors bespeaks a tasteless and vulgar mind, even if the wearer were a Duchess. Color should always be adapted to complexion. Ladies with delicate rosy complexions, bear white and light blue better than dark colors; while on the contrary, sallow hues of complexion will not bear these colors near them, and imperatively require dark quiet colors to give them beauty: yellow is the most trying and dangerous of all, and can only be worn by the rich-toned healthy looking brunette.—*Dublin Literary Gaz.*

MISCELLANEOUS.

ANIMAL MAGNETISM.

The following fact, which is so interesting to the history of magnetism, has taken place in the department of Gera, at the residence of the judge of the peace for the canton of Condon, in the presence of divers respectable persons:—John ——, a farmer, aged twenty-three, had an abscess inside of the upper part of the leg. The professional men who attended him prevailed on the patient to submit to a puncture, but the operation required the greatest caution and fortitude, as the crural artery, which traversed the tumour, was frightfully enlarged. Count de B—, whose magnetical power is remarkable, proposed to magnetise the patient to produce somnolency in the first instance, and then to produce insensibility in that part of the body where the operation was to be performed, for the purpose of sparing him those sufferings which would be unavoidable in a waking state. The proposal was accepted. At the end of two minutes the patient was plunged in a magnetic state. Somnolency manifested itself immediately, but without any particular consciousness. The patient replied to his magnetiser that he sought him in vain, and that he could neither see the disease nor the cause thereof. Dr. Lar*** performed then the surgical operation which had been deemed requisite with the greatest dexterity. He repeatedly plunged the instrument into the opening made by the bistoury, in order to give an issue to the purulent matter, when its flow was impeded by albuminous flakes. The wound was afterwards bound up. During the whole operation the patient remained motionless like a statue, without his magnetical sleep being in the least disturbed; and, on the physicians proposing that the magnetical state should be interrupted, M. de B. spontaneously awoke the patient. Dr. R. approached him, and asked if he would submit to the operation. "I must," replied the patient, "because it is necessary." Dr. R. announced then to him that it would be useless to begin again, as the operation had been performed already. The astonishment of the patient was excessive when proofs of this were exhibited to him. He had felt nothing, and absolutely remembered nothing but the act of M. de B. when he placed the palm of his hand on his forehead to make him fall asleep.—*Journal de Toulouse.*

(From the Village Record.)

"Wherefore by their fruits ye shall koow them."

To whatever cause or causes it may be ascribed, there exists a very perceptible change in the habits and manners of the harvest men throughout a certain district in Chester county. A few harvests back in traversing the same district you would rarely pass a company of mowers and reapers, whether going to, or returning from the field of labour, without seeing reeling men and boys, or hearing profane language, boisterous shouting, &c. How happy the change! How salutary the example! Gratulating a friend on the pleasing reformation, and at the same time inquiring into the causes which had produced such happy results—he emphatically replied: The moral courage of comparatively a few, under the blessing of God, has accomplished this, in setting examples of abstinence from all culpable indulgences; in successfully persuading all classes to educate their children or to avail themselves of the opportunity of so doing through the instrumentality of Sunday schools or the laws of the land; in the establishment of temperance societies; in the legal prostration of grog shops and other haunts of vice and immorality.

On putting the question. Do you anticipate permanency in this extraordinary change?—The answer was: Yes, most certainly; because the change has wrought in the minds of our people a conviction that it is their interest to cultivate it; add to this that they are, now generally, looking up to the "giver of every good and perfect gift" for its continuance.

VIATOR.

AN UNUSUAL WEEK'S WORK.

An inhabitant of Catskill, N. Y. with the assistance of his wife and one boy, in six days, cut, cured, and housed 15 loads of rye, to the amount of 3,000 sheaves, and six loads of hay—drinking molasses and water, milk and water, during the time, and nothing stronger. The man is forty-two years old, and offers to bet any man ten dollars that he can jump over a six rail fence, any time of day. In our presence, he passed himself double through the hoop of a flour barrel. During the six days abovementioned, he came twice to Catskill, ten miles, and hoed beans half a day besides. He challenges the country to produce a match. Such domestic industry, if any, deserves protection. It is the real American system.

Extract of a letter from Mr. J. J. Audubon, author of "The Birds of America," dated Liverpool, June 7, 1830, to a friend in Philadelphia.

"We arrived after a very rough passage, and proceeded to London by way of Manchester, and was happy to find all matters connected with the publication of my work going on prosperously. The 17th number is just coming out; and the new species of hawk, from the Mississippi, '*Falco Harlanii,*' you shall receive a plate of in a few months. I have obtained several new subscribers in Manchester and London, and I have greater hopes than ever that my 'birds of America' will spread in England.

"Mr. Children, of the British Museum, immediately on my arrival, placed in my hands a letter from the secretary of the Royal Society of London, informing me of my having been elected a member, and I had the honour of being greeted as such by our president on the 6th of May last.

"Of the numerous wild pigeons I obtained in New York, I succeeded in bringing 200 alive to Europe, and have distributed them among my noble friends, Lords Milton, Stanley, Spencer, and the Marquess of Stafford. Lord Stanley writes me, that the introduction of this fine species into England has been a desideratum these last ten years."

One of the most remarkable examples of the power of the human body in the endurance of great and continued fatigue, is shown by the strawberry women of England, who, during the season, carry a heavy basket on their head twice daily from Twickenham to Covent Garden, walking upwards of forty miles. Fatigue like this would soon destroy a horse; but these women, who come purposely from Wales and the collieries, endure the labour for weeks without injury or complaint. [*London paper.*

HINTS FOR MAKING BREAD.

The following recipe has been pointed out to us as worthy of insertion in the *Mercury*:—"Many poor people suffer extremely this winter from the soft state of the grain, and, consequently, of flour, whereby they find it almost impossible to make it into a good loaf. Now, if they will but put about a pennyworth of the best magnesia to every stone of flour, they may make it into as large loaves as they please, and improve the taste of the bread, and also remove its purging property; for there can be little doubt that the bread in such an alkaline and doughy state must produce fatal consequences, especially to children and people of delicate constitutions; but this, by the simple remedy before given, may be entirely removed. I saw this practised during the very sprouty time (I think) of 1816-17, and have always, since the new corn of last harvest came into use, had it practised in my own household bread, so that many have wondered where I got my flour, but, after trying the aforesaid remedy, have found themselves agreeably surprised."—*London paper*.

As an instance of the fertility of the soil of Columbia county, Pennsylvania, Col. Joseph Paxton, of Catawissa, has communicated the following dimensions of a stalk of Corn, now growing on the farm of Andrew Clark, near that place. It was measured by him, in the presence of Mr. Joshua Lloyd, of Ohio, and Mr. David Clark of this county.

Height of the stalk from the surface of the ground to the top without erecting the top blade, 14 feet 6 inches; circumference of the stalk measured between the joints, the blade stripped off, 7¾ inches. Length of a blade put out 8 feet from the ground, 4 feet 1 inch, breadth of do. 7½ inches.

Col. P. has no doubt, if the season continues favourable, the same stalk will reach the height of 17 or 18 feet; as no tassel has yet made its appearance; and banters the state of Ohio, to produce an equal.—[*Columbia Register.*

Lexington, *Kentucky, July* 2.

A Snake of uncommon and extraordinary dimensions, was seen near this place a few weeks since by Mr. J. B. Harbin, one of the most worthy and respectable citizens of our county. He informs us that passing through a lane skirted on each side by a thick forest, he saw this snake with his head resting upon the limbs of a tree, his tail extending to the ground. Surprised at the sight of such a monster, he dismounted and after striking it with stones, &c. compelled it to come down the tree, after which it mounted itself on the fence with its head erect. He was within ten or fifteen steps of the monster for half an hour, and represents it to have been about 18 or 20 feet long, as large round as an ordinary stove pipe, and of a brindle colour. His eyes were of the same hue as his skin and as large as a four pence half penny. Many of the neighbours had gone in search of him, and discovered his trail which led to a cave. $500, we understand, has been offered for his majesty.—His tail is perfectly blunt, and he is supposed to be of the *Bull* species. [*Gazette.*

Mr. Poulson:—In your paper of Tuesday it is stated that a plum had been presented to the Editor of the Troy Sentinel, which measured 5¼ inches in circumference; and that "it was of the *gage* kind and very *engaging* in its looks."—This no doubt was a rare bite to an Editor so far north; but to us it is not so rare a circumstance.—At the Merchants' Coffee House there has been one exhibited for some days past, which grew in this city, measuring 6 inches in circumference one way and over the ends 6½ inches. [*Philad. American.*

Respect virtue, though clothed in rags.

RECIPES.

AN EFFECTUAL CURE FOR THE BITE OF A SNAKE.

Last summer a black man in Frederick county was bit on the finger in the corn-house about dark by a snake, supposed to be a copper-head, from the circumstance that one was killed the next day under the house. Immediately his arm swelled to twice its ordinary size. I applied first the breast of a chicken cut open, next a large vial of whiskey, to the wound. We also bathed the arm and hand frequently during the night and the next day until 10 o'clock with salt water, without any visible abatement of the swelling. At that time a physician arrived, and immediately sent for the root of the yellow poplar tree, (more properly called the American tulip tree,) he had a strong decoction made of the bark, washed the swelled part with it frequently, gave the patient half a pint every half hour and applied the bruised bark which was boiled as a poultice. The relief was almost instantaneous, the swelling soon subsided, and the pain which was very excruciating, in a short time ceased altogether. The doctor assured me that had it not been for the administration of this simple remedy, the man would not have lived many hours, and I am convinced from what I saw that had it been applied in the first instance, the suffering would have been very light. I wish this remedy to be generally known, it may save the lives of hundreds.

Pikesville, (Md.) June 1830. Jas. Johnson.

RIPE TOMATO PICKLE.

The Union Times gives the following recipe for making *"the most savory pickles in the world:"*

"Take ripe tomatoes, and prick them with a fork or pointed stick, put them into any kind of vessel, salting each layer thickly; let them remain in the salt about eight days—at the expiration of the eight days, put them for one night into a vessel of vinegar and a bottle of good mustard, put half an ounce of cloves, half an ounce of pepper, and one dozen large onions sliced—pack them in a jar, placing a layer of onions and spices between the layers of tomatoes. In ten days the pickles will be in good eating order."

CURE OF THE TOOTH-ACHE.

At a recent meeting of the London Medical Society, Dr. Blake stated that the extraction or excision of teeth was unnecessary. He was enabled, he said, to cure the most desperate case of tooth ache (unless the disease was connected with rheumatism,) by the application of the following remedy to the diseased tooth: "alum, reduced to an impalpable powder, two drachms; nitrous spirit of æther, seven drachms; mix and apply them to the tooth."

THE FARMER.

Baltimore, Friday, August 27, 1830.

Extract to the Editor, dated Salem, N. C. August 10th, 1830.

Sir,—We have had a most excellent and plentiful wheat harvest; the corn crops are not so promising, owing to the great drought we have had this summer. We now begin to have some fine showers of rain, which is improving the corn crops, more especially the late ones, so that we shall yet have more, than we sometime ago expected to have.

A subscriber to the American Farmer.

Latest Foreign News.

By the Herald, at this port, we have English dates to the 11th July.

It is in contemplation that the Coronation of William the Fourth should take place next October, and although not on an extensive plan, still with that dignity and pomp becoming a nation like Great Britain.

Great rejoicing took place at Newgate among the criminals, 37 in number, under sentence of death, on being informed by the ordinary that all their lives were spared. Some burst forth into almost frantic exultation, others wept for joy, and some implored the blessings of the Almighty on behalf of the merciful King William.

All the members of the foreign *Corps Diplomatique,* who had been accredited to the late King, were presented to King William on the 3d July.

The Marchioness Wellesley had been appointed *First Lady of the Bedchamber* of the new Queen.

It was stated in the Belfast Chronicle that Mr. O'Connell will not again offer himself for Clare, but for the Borough of Carlow.

The funeral of his late Majesty had been fixed for the 15th July.

The Paris Journal des Debats says—"There are now 276 Deputies whose elections are known. Of the opposition, 170; Ministerial, 99; voters for the amendment of Lorgerich, 6; unknown, 1;—123 of the 221 are already re-elected; 10 have failed.

The French hospital of Sidi Ferruch received before the 24th ult. 523 wounded and 75 fever cases.

A letter from Constantinople states, that the exchange of the Treaty of Amity and Commerce, concluded with the United States of North America, took place on the 30th of May.

A dreadful fire took place at Constantinople on the night of the 30th May, which destroyed nearly 400 houses.

ALGIERS TAKEN.

The New York Gazette of Tuesday contains the following intelligence, which, if true, is very important. We confess that we do not give implicit confidence to the report, although we *know* of no impediment to such a successful movement by the besiegers.

Capt. Beecher, in the brig Industry, arrived at New Haven on Saturday, in 13 days from St. Bartholomews. He states that a Swedish ship had arrived there in a short passage from Gibraltar, with the following important news, viz: Algiers was taken by the French on the 4th of July, by assault. The loss of the French in killed was 3,500—Algerines 5,000. The Dey retreated to the interior. The French were repulsed on the first attack. Capt. B. says that this intelligence is but thirty-eight days from Gibraltar.

The above accounts, probably, are as late as the 13th of July. The Francis, arrived here yesterday, sailed from Bordeaux on the 10th of July, at which time nothing of a decisive character was known as to the success of the French expedition against Algiers, except that 20,000 more troops were sent for.

The continued rains in France had almost destroyed the vineyards,

On the 18th inst. the Francis experienced a severe gale, and saw seven vessels after it, five of which, two brigs and three schooners, were dismasted.

Liverpool Cotton Market, July 9.

There has been an extensive demand for American Cotton during the week, and an advance has been realized of ¼d per lb. generally, particularly in the middling and low qualities. The inquiry for Brazils has also been good, and prices have improved ¼d per lb. The sales amount to 26,020 bags, viz: 200 Sea Island Georgia, 13d a 17d; 11,150 Upland do. 6¼d a 7½d; 3090 Mobile and Alabama, 6 3-8d a 7¼d; 4840 New Orleans, 6¾d a 8d; 1990 Pernambuco, 7 5-8 a 8¼d; 800 Bahia and Macaio, 7 5-8d a 8d; 2170 Maranham, 7 3-8d a 8d; 130 Demerara, &c. 9¼d a 9½d; 690 Egyptian, 7 7-8d a 9d; and 960 Surat, 4 5-8 a 6d per lb. Import 32,549 bags. About 5000 bags American and 1500 Pernams have been taken on speculation.

Liverpool Corn Market, July 5.

On Tuesday we noticed an improvement of 2d per bushel on Wheat, and 1d on Oats, with a tolerably free sale for both articles. The supplies of free Grain continuing very small, the above advance has been fully supported throughout the week; and on Saturday rather higher rates were generally demanded for both Wheat and Oats, but the sales were not extensive. 11s per 70 lbs. was obtained for one parcel of choice Stettin Wheat, and there is little foreign Wheat now to be had under 10s 4d to 10s 6d. A cargo has this week arrived from the United States, the quality of which is remarkably fine. Several parcels of Oats changed hands at 5s 11½d to 4s. Barley has been in request, and must be noted 1d to 2d per 60 lbs. dearer. Beans and Peas have also met a more extended demand, and our former quotations for each have been exceeded 1s to 2s per quarter. The sale of Flour has been less free, but the demand for Oatmeal continues at a further small advance, 37s to 38s has been realized for prime qualities. Upwards of 30,000 barrels of United States Flour are reported since Tuesday, but few transactions have occurred in this article under lock: some holders have shown an inclination to accept rather lower rates. Bonded Wheat maintains its late value.

General average of Grain for the week ending July 2, 1830, per imperial quarter—Wheat 68s 6d; aggregate average of the last six weeks, Wheat 66s 7d; duty for the present week, Wheat 20s 8d.

Liverpool Corn Exchange, July 6.

Since Tuesday last the imports of Flour from the U. States have been very considerable, but those of Grain from foreign ports have been very moderate, and from Ireland and coastwise they appear to be entirely falling off. At this day's market we had a thin attendance, and the sales effected were only to a moderate extent; the prices of this day week were however fully obtained for every description of Grain, and in some instances, a little exceeded for superior qualities of Wheat and Oats, by 1d to 2d per respective bushel. The stocks in Liverpool on the 1st July inst. of bonded Grain and Flour were, from official information, as follows: 58,395 imperial qrs. of Wheat, 28,454 qrs. of Oats, 12,990 qrs. of Barley, 1079 qrs. of Beans, 845 qrs. Peas, 156 qrs. of Rye, and 127,054 brls. of Flour. The stock of free Wheat and Oats this day, is estimated as not exceeding 30,000 qrs. each. Of all other Grain, and of Flour and Oatmeal, the stocks are very trivial.

London Corn Exchange, July 5, 1830.

During the preceding week the supplies of all descriptions of corn were moderate, and the fresh arrival this morning is very small. According to the indications of the weather, the harvest, it is thought will be rather late. The attendance of millers and country buyers, this morning was tolerably good. The best parcels of English and foreign free wheat are reported full 2s per quarter dearer than on this day se'nnight, whilst all descriptions of wheat in bond have obtained an advance of 3s to 4s per quarter. The supply of flour is tolerably good, and the trade continues without alteration. It is expected that the duty on foreign wheat will be 18s 8d in two or three week's time.

London Corn Exchange, July 9.

Wheat is 2s per quarter dearer for English, and 3s to 4s for foreign; oats fetch 6d to 1s per quarter more than on Wednesday. Other grain remains as on that day. The supply is—3,351 sacks of flour; 1,880 qrs. of wheat; 820 qrs. of barley; 1,010 qrs. of oats; 18.820 qrs. of foreign wheat; 550 qrs of barley; 10,980 qrs. of oats; and 600 qrs. of Irish oats.

(From a New York paper of 24th of August.)

Our Grain Market.—A morning contemporary stated yesterday, that the speculation in our market on Friday, was occasioned by the following extract of a letter, received from Portsmouth, N. H.

"The ship Olive & Eliza arrived here on the 17th, bringing Liverpool accounts to the 10th July. She sailed on the 11th. We are advised that flour had sold at 32s. showing an advance of 4s. per brl. Capt. Moody states that prices would probably go still higher, as the crops were unfavorable and much would be wanted."

In our market yesterday, there was not much business done; in fact, the stock of Flour and Grain is so much reduced that there is no field left for extensive operation. The few sales made yesterday were principally of New York and Troy, at $5½ a 5 5-8, being an advance of fully 25 cents on our quotations of Saturday.

In the present state of things, we deem it proper to give the quotations of Flour and Grain at the close of Exchange hours yesterday, as follows:

FLOUR.

Western, - - - - -	$5 50—5 75
New York, - - - -	5 37—5 50
Troy, - - - - -	5 50—5 62
Philadelphia, - - - -	5 37—5 50
Baltimore, Howard street, - -	- ——5 75
Do. City Mills, - -	5 25——
Richmond City Mills, new, -	5 75—5 87
Do. Country, new, - -	5 50—5 62
Do. do. old, - - -	5 25——
Alexandria and Georgetown, -	5 37—5 50
Petersburg, new, - - -	5 50—5 62
Fredericksburg, old, - -	5 12—5 25
Scratched and Fine, - -	4 75—4 87
Fine Middlings, - -	4 25—4 62
Rye Flour, - - -	3 ——3 12
Indian Meal, - - - -	3 ——3 12
Do. do. hhds. - - -	13 ——13 25

GRAIN.

Wheat, north, - - -	1.04—1.08
Do. western, new, - -	1.10—1.12
Do. Virginia, new, - - -	1.10—1.12
Do. North Carolina, new, -	1.08—1.10
Do. Maryland, new, - - -	1.08—1.10
Rye, - - - - -	65—-66
Oats, - - - - -	31——36
Barley, - - - - -	none.
Corn, southern, - - -	52—-54
Do. Yellow, north, - -	58——60
Do. White, L. I. - - -	66——67

Prices Current in Charleston, August 16.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 28. Upland, inferior and common .9 a .10, fair to good, .10 a 10¼, prime to choice, .10¾ a .11 5-8. *Rice*, prime, $2¼ a .2 5-8, inferior to good, do. $2.12½ a .2.87½. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5.25—*Corn*, .53 a .57. *Oats* 37 a .—; Peas, 65, sales. *Hay*, prime Northern, 80 a 85. *Whiskey*, Philadelphia and Baltimore, hhds. .26 a ——; bbls. 26 a 27; New Orleans, old .28 a .30. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 38. *Beeswax*, .16 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a 9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a 6½; Cargo, .5½, nominal. *Pork*, Mess. .14 a 14½; Prime, .— a .11, scarce. *Bacon*, .7 a .— cents; Hams, .8½ a 9; Lard, 11 a 12. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

AGENCIES.

The Subscriber is agent for the following persons, and all orders directed to him, or left at his Agricultural Warehouse and Seed Store, No. 36, West Pratt street, Baltimore, will be promptly attended to.

Viz. for Messrs. Walker and Hammond's Iron Foundry, where all kinds of *Castings* can be had, equal to any made in this country, and on reasonable terms.

Also, for Messrs. Peirson and Walker, manufacturers of all kinds of *Spindles* for factory use, these will be warranted equal or superior to any ever before made in or imported to this country.

Likewise, agent for the Messrs. Robbins's improved *Corn Planter* for planting or sowing all kinds of seeds; can furnish the machines or dispose of the patent right. All communications by mail must be post paid.

Also, general agent for Messrs. D. & C Landreth's Seed and Horticultural Establishment at Philadelphia.

Also, a general assortment of Agricultural Implements on hand as usual, &c. J. S. EASTMAN.

ALMANAC.

1830. Aug.—Sep.	Sun. Rises. H. M.	 Sets. H. M.	Length of days. H. M.	Moon sets. H. M.
Saturday,.... 28	5 28	6 32	13 4	0 15
Sunday,...... 29	5 29	6 31	13 2	0 40
Monday,..... 30	5 30	6 30	13 00	1 50
Tuesday,.... 31	5 31	6 29	12 58	2 50
Wednesday, 1	5 32	6 28	12 56	3 40
Thursday,... 2	5 33	6 27	12 54	4 45
Friday,....... 3	5 34	6 26	12 52	rises.

Full Moon—2d, 5h. 43m.—Afternoon.

BALTIMORE PRICES CURRENT.

Baltimore Markets —A little improvement will be noticed in the prices of flour and grain, though the flour market is quite unsettled. Howard street flour is scarce, and there appears little disposition on the part of holders to sell. This state of things is attributed to a supposed injury done the English crops by wet weather, and further intelligence from that country is anxiously looked for. It will be recollected that a similar rumour with a similar effect was circulated last year. Beef has improved a little, from sixty to eighty head having been sold this week at prices within the range of our quotation.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a 28 00—St. Domingo, 8.00 a 15.00. The inspections of the week are 364 hhds Maryland, 40 hhds. Ohio; total 404 hhds.

Flour—best white wheat family, $6 00 *a* 6.50—super. Howard-street 5.37½-city mills, 5.12½ *a* 5.25-Susquehanna, ——; Corn Meal, bbl. 2.25——Grain; best red wheat, 98 a 100;-—best white do. 1.04 a 1.07 common red 85 *a* .90——Corn, white, .50 *a* .52 yellow .48 *a* .50—-Rye, .47 *a* .50-——Oats, .— *a* .26 Beans, .90 *a* 1.00-Peas, .50 *a*. 60-Clover seed, 3¾ .*a* 4. Timothy, 2.50 *a* ———Orchard Grass, 1.50 *a* 1.75—Herd's, .75 *a* 1.25—Lucerne 30 *a* 37½ lb.—Barley,—Flaxseed, 100—-Cotton, Vir. 9½ *a* 10½—Lou. 11½ *a* 12½ —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .20½—Geo. .9 *a* .10—Whiskey, hhds. 1st p. .24 *a* 24½; in bbls 25 *a* 25½—Wool, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $210 *a* ——; Country, dew-rotted, 5. c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, 5.50, *a* 5.62½ No. 2, 4.87 *a* 5.00—No. 3, 3.87 *a* 4 00-Bacon, hams, Balt. cured, 10c.-Feathers, 25—Plaster Paris, cargo price per ton, 4 18¾ *a* 4.25—ground, 1.25 bbl.—Iron, gray pig, for foundries, per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.00 *a* 4.75—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

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Printed every Friday, at Five Dollars per annum, for JOHN S. SKINNER, Editor, by John D. Toy.

AGRICULTURE.

(From the Western Tiller.)

On the making of Sugar from Beets, in a letter from the Hon. William Johnson of South Carolina, to the Hon. Jacob Burnet, Ohio.

I have not been unmindful, my dear sir, of my promise to furnish the state of Ohio with the necessary information to enable her to determine whether it will be to her interest to embark in the culture of beets for manufacturing sugar.

My friends at Washington were amused at my enthusiasm when I expressed the opinion that the day might arrive in which Ohio would sell sugar to Louisiana. I will not be discouraged by their (at present) very reasonable doubts. I saw the time when the first projector of raising cotton in the interior of South Carolina for a crop, was ridiculed as a *visionary.* And when poor Fitch had not only projected the application of steam to boat navigation, but actually succeeded as early as 1788 in running a boat between Philadelphia and Trenton, on principles scarcely varying from the steam machinery now in use, he was still left to die neglected as a *visionary,* or at least the projector of an idle and impracticable scheme, while a more fortunate disciple, like Americanus Vespucius, has borne away the honor. So with regard to the making of sugar from beets; in order to render France independent in war and in peace, of the industry and national advantages of her natural enemy, we all remember how Buonaparte was ridiculed in the British prints. Yet, although laboring against difficulties which they did not at first comprehend, and destitute of means which perseverance and philosophy have since supplied, the French have at length succeeded; and, in a country always famed for its agricultural advantages, we find the making of sugar from the beet now set down as the most promising source of her agricultural wealth.

Already in 1825 was the labour of the manufacturer separated from that of the producer of the article; not less than one hundred manufactories were in successful operation producing between four and five millions of pounds of sugar, their number was increasing, the quantity rivalled the product from the cane, and it was confidently expected that it would soon attain to the full consumption of France, estimated at one hundred millions of pounds. If so, it will soon after become an export. My attention was drawn to this subject in the following manner: I had been for several years experimenting upon the production of the sugar cane in the vicinity of Charleston, and fully succeeded in raising as fine cane as any that I had ever read of; I expressed the juice and found its specific gravity equal to that of Jamaica, and had found no difficulty in making an equal proportion of sugar from a given weight of juice, in a few experiments made under every disadvantage.—It was therefore fully ascertained that we might make sugar, and some others having equally succeeded in raising the cane, there was produced among us a very general inclination to adventure upon that branch of agriculture. But there appeared to me one important question yet to be decided before a prudent man ought to venture upon an experiment attended with great expense and exposed to serious casualties. I had at the same time made experiments upon raising the beet, and was struck with the great facility and certainty attending its production, and the astonishing size and quantity to which it could be carried. Compared with the production of other countries, I saw nothing in the books to surpass, if any thing to equal my own results.

Here then three questions presented themselves.

1st. Whether considering how vast was the proportion of the habitable globe adapted to the culture of the beet, (for I have seen no country too hot or too cold for it, and no soil scarcely that may not be made to produce it,) there exists not a possibility that it may, in time, supercede the sugar cane; restricted as the latter is by nature to particular climates?

2. Whether, in a country having such a fast hold upon the valuable articles of rice and cotton, we should not be verifying the apologue of the dog and his shadow, in abandoning a certainty for an experiment? Productions abandoned by one country are generally taken up by their wiser neighbors, and not always to be resumed at will.

3. Whether the beet under all circumstances can be cultivated to advantage for making sugar, or can maintain a successful rivalship with the cane?

For the solution of these questions I turned my eye towards France, where I knew the attempt had been made twenty years since; the history of the progress and present state of the experiment had not reached me, and in fact had long ceased to be an object of interest or inquiry among us.

I took measures to procure from a friend in Paris, the latest and most approved work upon the subject, and accordingly received that from which I now propose to furnish you with the necessary extracts.

The title is "The art of making Sugar from Beets," the author is M. Durbanfaut, member of the society for encouraging national industry, correspondent of the Royal and Central Agricultural Societies of Paris, &c. &c., published by Berchelin, quai des grands Augustin, No. 55, in the year 1825. The author professes to owe much to the works of the Count Chaptal and of M. de Dombasle, whom he often quotes.

Besides an introduction of sixteen pages, the work contains 558 pages octavo, with cuts of all the apparatus and machinery used in France, as well for grinding and pressing the beet as for boiling the sugar. The work is very minute and elaborate, furnishing, according to the judicious mode of the French writers, all the information a reader can require, and not leaving him under the necessity of looking beyond the book he is perusing. If the perusal of it has not finally solved the three questions above suggested, it has at least satisfied me that throughout our country, wherever the cotton, rice or cane cannot be cultivated to advantage, the beet may well compensate the cultivator by the production of sugar. But of this I propose to furnish the data necessary to enable our fellow citizens to determine for themselves.

The author introduces his work with an eulogium which I translate verbatim.—"Among all the numerous branches of manufacturing industry," says he, "which unite best with agricultural industry, there is no one more worthy of the attention of the cultivator than the fabrication of sugar from the beet root. It promises to his fortune considerable advantages, while to the country it presents a new source of riches."

He then goes on to show how admirably it is adapted to create and promote both those great agents of national prosperity, without exhausting the soil or at all interfering with the cultivation of those plants which furnish food to man. The rest of the introduction is occupied with a summary of the history of the application of this plant to the production of sugar, and is no farther of importance than as it serves to show that it has triumphed over more than ordinary difficulties, until at last it is firmly established as an important article in French husbandry; and as a rival of the cane, capable of maintaining a competition in peace as well as in war.

Although the presence of saccharine matter in the beet, was discovered by a Prussian chemist (Margraff) as early as 1747, it appears to have attracted little attention until the experiments of Achard, made forty years after, suggested the practicability of turning the discovery to economical purposes. Some error or awkwardness in making scientific experiments upon it in 1800, seems to have nearly prostrated every hope that had been previously entertained, until in 1810, when the pressure of war and blockade having raised sugar in France to an enormous price, the discovery was again resorted to and finally crowned with success. Yet it was not until after great losses and disappointments had been sustained by individuals, that the public became possessed of that mass of experimental knowledge of which we are now at liberty to avail ourselves. "People at first imagined," says the author, "that it was only necessary to have the beets in order to make sugar, and that the species, the mode of cultivation and of preservation, the nature of the soil and manures, nay, even the process of extraction, were, if not absolutely immaterial to the results, at least, of so little importance that they might be neglected."

The culture of the beet appears to have been but partially known in France at the time of the experiments in 1810. The author mentions the scarcity root as the only species cultivated at that time, (p. 3;) it was to that the first manufacturers had recourse, and experience has since established that of all the species this is the least adapted to the production of sugar.

This was the first capital error of the French; the next was the effort to raise the roots to the greatest size possible; and the third was stripping the leaves for their cattle before they gathered the roots for the factory. It has since been ascertained that large roots are less productive than small, and stripping the leaves is held to impede the elaboration of the juice.

It is nevertheless conceded that some beets of all sizes and all species, and under every mode of cultivation or treatment will produce sugar; but the quantity and quality are held to be materially improved by the choice of species and the mode of treatment.

On this subject the interests of the cultivator and manufacturer appear to have clashed. Since the former, who sold by weight, was interested in forcing the growth of his plants, while the interest of the latter lay in purchasing as little water and pulp as possible in proportion to the quantity of saccharine matter.

The necessities of both soon brought their interests to a natural level; one discovered that price could compensate for the loss of quantity, and the other invented the means of adapting the process of extraction to beets of all qualities and sizes.

Of the most approved kind of beet for making sugar. As my object is to condense as much as possible the information wanted on this subject, omitting, I hope, nothing that is necessary to be known, I will waive all attempt at a general description of the beet and its varieties, and describe, with as much precision as possible, those kinds to which experiment has attached a positive preference.

The first is a white beet, called the white beet of Silesia, described as "round, pear-shaped. leaves white, (or light green,) and flesh white and firm." This was the kind recommended by Achard, and the experience of fifteen years in France has confirmed its reputation. It is described as always producing a small root, difficult to grind, and yielding but little juice comparatively, but that juice abounding in sugar. The cultivation of it also requires less labor, and its preservation is more easy.

After this kind, opinion is represented as varying greatly upon the order in which other kinds of beet rank in quantity and productiveness, or other circumstances recommending them to a preference. Some manufacturers give the preference to a variety of the yellow beet, called the beet of Castilnaudry. Its characteristics are, "pear-shaped, elongated, of a moderate size, flesh yellow, leaves green, with a yellowish cast." I have cultivated this species and notice the superior saccharine consistency of its juice. Others prefer a kind which is thus described:—flesh white, skin yellow, root pear-shaped, and leaves white, (or rather light green,) "and as this is probably produced between the white and yellow beets above described, it is very possible that it may unite, and perhaps improve the properties of both. Others again are partial to a beet with a rose colored skin and white flesh; it is described as a sub-variety of the white beet, in these words; "rose-colored, pear shaped, flesh white, sometimes a little tinged with red, and leaves white."

This diversity of opinion the author very properly surmises, may proceed from the difference of climate, soil, and culture of the various departments in which the cultivators reside. It is not impossible that the experience of our own planters may result in giving preference variant from those of other nations, when they come to extend the cultivation of the article, the varieties and sub-varieties of which may multiply indefinitely, since all the different kinds of beet mix and blend when cultivated in the same region of country; and every kind will be more or less affected by soil, climate, exposure, manure and cultivation.

But one general rule he considers as established as well by the manufacturer as the chemist, that the productiveness of the beet in sugar is in an inverse ratio to the tendencies of the kind to produce a large juicy root. And this is exemplified in the instance of the Silesian beet and the scarcity root, both white beets, but the former producing a small, the latter a large root.

Still, however, it does not follow that the cultivation of the smaller root is the most economical, since the same land and labor may possibly produce so much of the larger kind as greatly to overbalance its defectiveness in the proportion of saccharine matter.

The author, after examining this question, comes to a conclusion, which I will give in his own words: "I conclude, therefore, that there is no kind of bad beets, but a vast deal of bad management, and that by varying your management with the different roots on which you are operating, you would constantly obtain good results. This is not my opinion alone, but that of a distinguished manufacturer, (M. Crispel d'Arras) with whom it is confirmed by long experience and judicious observation."

In making purchases, the manufacturer has recourse to the hydrometer; the cultivator may do the same, or determine the specific gravity of a small quantity of the juice weighed against an equal quantity of rain, spring or distilled water.

The nature of the season will, of course, vary the results, the juice will be more aqueous if the year has been marked by the fall of more rain than ordinary. And one place will, in the same year produce a richer juice than another, probably as the water rests or passes off.

Great changes are continually occurring in the variety of the plant, requiring a corresponding care of the cultivator if he wishes to preserve a particular kind. These changes he discovers by observing the leaf, and selects his roots for seed both by that indication and by the vigorous growth of the plant. These are set out at the proper season two and a half or three feet apart. When the seed is ripe the stocks are cut and the seed rubbed off. It is then spread on cloths in the open air and then in the sun to dry. Without these precautions the seed is so apt to heat as certainly to destroy itself or its species. Twenty roots are generally sufficient to yield a bushel of the seed.

It is not true that the sugar is destroyed in the plants that produce seed. These roots will yield as much sugar as they would the first year of their growth, provided they survive, which is not always the case.

Soil and climate. Whether every kind of beet is equally adapted to every climate is a question which I will not undertake to answer. I know that the small white beet, the yellow beet and particularly the turnip rooted red beet will thrive well in South Carolina. Of other descriptions I have some reason to doubt; but in climates beyond the culture of rice, cotton and cane, there is little reason to apprehend a failure in any kind of beet. Our author asserts that in the most northern parts of France it thrives best, and is of opinion that Russia will prove the most favored country in the making of sugar from the beet. He asserts that in Germany, Prussia and Silesia, where the experiment had its origin, the juice of the beet is richer generally in saccharine matter than in France, and to this cause he attributes it that Mons. Achard, in his very first experiments, necessarily made under disadvantages, produced as great a proportion of sugar as has ever been produced in France under the aid of all the modern improvements. He communicates also the fact that in 1807, manufactories of sugar from the beet had already been established near Moscow, and were thriving and multiplying. This is enough to satisfy every mind that there are few parts, at least of the middle and northern regions of our country, in which the climate is not adapted to its production; nor is there, perhaps, any soil adapted to the ordinary objects of culture in those states in which it may not be made to grow; yet on this subject there must certainly be much discrimination. Thus it will not thrive on a cold, stiff clay; nor on poor or exhausted land, unless the latter be well manured. But the author asserts, and analogy would suggest, that in high, dry, level situations, where the growth is not luxuriant, the juice is more highly charged with saccharine matter than in lower moist situations where it obtains to a great size. Perhaps the most practical rule is, that any land that will produce grain or potatoes luxuriantly will produce the beet well; and certainly any land that is in a state to produce good turnips, will produce fine beets. A rich, warm, open, dark loam will be found the best adapted to it; and the size of the root and quality of the juice will be improved by depth of soil and a favorable exposure; and whatever be the soil it should be prepared so that the plough may penetrate eight or ten inches. A tongue-plough following in the furrow of a barshare would not be an unappropriate preparation.

Preparation of the ground. This is done by working, manuring, and rotation of crops. The French plough, harrow and roll their ground. What we would substitute for this more perfect application of the means of good husbandry, will depend much upon the habits, more or less slovenly, of the various parts of our country. The land, however, should be put in high order. I would give it three ploughings and a rolling or harrowing or both. The quantity cultivated would be comparatively so small that any quantity of labor might be bestowed upon preparing it. Some idea may be formed of this when it is mentioned that Achard supposes that sixteen square miles cultivated in beets would supply the kingdom of Prussia with sugar. The beet appears not to demand any great and immediate supply of manure, but it does require tillage, and is, therefore, ranked among the best preparing crops, and in France dispenses with a fallowing or takes the place of it.

The following is a summary of the several series or alternations of crops which have been adopted into French husbandry, in the places where the beet has been permanently introduced.

First year, wheat, oats, rye, barley or potatoes, manured; 2d year, beets; 3d year, wheat, barley or oats, with clover; 4th year, clover. Or, 1st year, oats or potatoes manured; 2d, beets; 3d, wheat; and the same repeated.

Manuring. On this subject there is little peculiar to the beet to be observed, except that when new and hot, it is not advisable to apply stable manure to this root, as is suggested by the rotation of crops before exhibited. The author also notices that much use is made of the beet tops and other remains of the beet, for manure, by burying them into the soil whilst green; that is, soon after they are cut off, and so far as it is not proposed to feed them away to cattle or sheep.

Seeding. This is done in France in the latter part of March or throughout April, but in case of disappointment may be carried through May and into June. With us it must be regulated by the breaking up of winter and ability of the young plants to resist frost, of which the cultivator must judge from his own experience; we sow it in September, October and November. From seven to ten kilogrammes of grain, about fifteen or twenty pounds weight, will seed a hectare of land, about two acres French. In France the kilogramme costs less than fifty centimes, or about 47-100, say half a dollar of our money.

It sometimes happens that the first seeding fails; if this happens from wet weather it is probable the seed has rotted in the ground and it must be replanted, but its springing may be retarded by dry weather for a month or six weeks. There is no remedy for this but patience or irrigation. Accidents from frost can only be repaired by replanting. But it sometimes happens that the seed is defective, being eaten by small worms, which devour the kernel without perceptibly injuring the shell. Old seed is subject to this injury, and it is always prudent to try your seed in a box deposited in a warm place after the manner of trying turnip or cabbage seed. So much time, however, is given for seeding, that notwithstanding these casualties, the crop can seldom fail, if seed is to be had. It is always prudent, however, to be prepared against such casualties by laying in a good store of seed.

The distance given to the plants varies generally in French husbandry. On strong land it is less, on poor land greater, and varying from ten to twenty-four inches; but this is a subject on which every farmer will be called upon to exercise his own judgment according to his own experience. I, who would never plant otherwise than in drills, would leave space for a plough to turn between the drills, and fourteen to eighteen inches between the plants, inverting the French rule by giving most space when the land is richest, but always having in view the size to which I wish to raise my plants. If smaller, the plants must be more crowded. But there is an important rule to be observed here; for if nature is too much cramped in her course or tendency to development, she will certainly produce a decrepid issue, if not an abortion. (To be continued.)

(From the Oxford N. C. Examiner.)

"FARMERS' ARITHMETIC."

Profits of Agriculture.—If the great Franklin had ever lived in the country, his observing eye would have noticed and his discriminating judgment have solved the following difficult problems:

1. Farmers are more imposed on than any other class of the community; they pay nearly the whole expense of the state government; are oppressed by a heavy tariff and other onerous measures of the general government, and by the commercial regulations of foreign nations; never have much money—yet every industrious, prudent farmer grows rich!

2. The mechanic receives his 75 cents or a dollar a day, yet remains poor; the farmer earns his seventeen cents a day, and grows rich!

3. Merchants, physicians, lawyers, and others, receive their thousands per annum, and die poor; while the farmer scarcely receives as many tens, yet dies rich!

How are these strange results produced? All calculation in dollars and cents fail to account for it. Those who are determined to bring every thing to the standard of dollars and cents pronounce agriculture to be wholly unprofitable, when the fact that nearly all the wealth of the country has been obtained by agriculture, stares them in the face. In the opinion of these calculators, agriculture is the proper pursuit of such only as have not sense enough to pursue any thing else!

The mischiefs which such calculations are doing in our country, first induced me to call the public attention to the *Farmer's Arithmetic*. But having been more accustomed to handling the plough than the pen, I am altogether unable to do justice to the subject. If some abler hand would take it up, dispel the mist now resting on the subject, and show us clearly the whole truth of the matter, it would do sufficient good to compensate the labors of the ablest patriot.

When the *mechanic* lays down his tools, and the *professional* man is idle, they are sinking, because their expenses are going on and their profits are suspended. Not so the *farmer;* while he sleeps, his crop grows and his stock continues to increase, and when he spends a social evening with his neighbor, every thing continues to advance. The *Farmer's Arithmetic* shows that the farmer grows rich by saving, while others continue poor by spending. Others have first to make money and then give it for meat, drink and raiment, while the farmer obtains all these at home. If he wants a fat lamb or pig, he has it without losing a day or two in trying to buy one. If he wants a new coat, the industry of his wife supplies it. In short, he wants but few, very few things which he cannot obtain on his own farm. Why, then, should the farmer repine because he has not the *money* to buy abroad? or measures his wealth by comparing his money with that of others, who must give it all for things which he has without buying? Surely a farmer may, without a sigh, resign to others the gaudy fabrics of foreign artists, while he is clothed by the labor of the hand that soothes his cares and strews with pleasure his journey through life. When I see a farmer appear in company genteelly dressed in homespun, I think of Solomon's description of a good wife—"her husband is known in the gates when he sitteth among the elders," and most cordially do I congratulate the possessors of such a prize.

Jack Planter.

HORTICULTURE.

(From "Prince's Treatise on the Vine.")

PRELIMINARY REMARKS ON THE CULTURE OF THE VINE.

The French boast that their country possesses greater advantages than any other for the successful culture of the vine, and that for centuries her vineyards have been regarded as one of the principal sources of her territorial riches, and that the exportation of their produce has been the certain means of making the balance of trade with foreign nations at all times in her favour. If we banish from our recollection the once luxuriant fields of now enervated Italy, and pass from the recollection of the genial climes and bright sun of Spain and Portugal, we shall doubtless be compelled to acquiesce with the sons of France, so far as relates to the eastern hemisphere; but when we recur to our own happy country, combining every variety of clime and soil, with the conscious knowledge that she is yet but in her infancy, and look forward with the gaze of anxious hope to her high destiny, can we as Americans fail to reply to that nation in her own language:

Voila l'Amerique ta rival!

Too long indeed have the natural riches of our soil remained subject to the bias of contracted vision, and dormant beneath the eye of prejudice. Too long indeed have Americans listened to the counsel of strangers to their country and to its interests, rather than seek for facts in the bosom of her grateful soil, thereby allowing their own reason and intelligence to be the dupe of foreign ignorance, envy and rivalry. "France," says a French writer, (who seems more conversant with flowers of rhetoric than with those of horticulture,) "possesses in her vineyards mines of wealth, whose advantages are furnished by natural causes which secure to her a superiority in this respect which no other nation can dispute." Happily for ourselves we live in an age and country in which the people are but little prone to credit such exclusive possession of nature's gifts, and it will create exceeding disappointment in all unprejudiced minds, if the lapse of a few short years shall not place this affected superiority of France among the fictions and delusions of former ages. Bountiful nature, replete with benevolence, has bestowed on us every favour within her gift, and asks only of man to aid the development of her intrinsic riches by the hand of culture. As to the assertions advanced by some foreign writers, that the same grape varies so much by removal as to entirely lose its character, and that the same kind of wine can in no case be made from it in different localities, they certainly cannot be supported by facts, and have principally obtained currency and credence by repetition; for as positive proof to the contrary, we may quote the Pineau class, which has every where been recognised from the remotest periods, and cannot be mistaken for any other; and the Meunier, which is only a sub-variety of the same family, can never fail to be distinguished. We may also enumerate the Muscat family, which can in no case lose their identity or the peculiarities of their class. That the quality of the fruit may be varied by soil, climate, &c. to a certain degree, is acknowledged and has been already avowed; the grapes may also be less mature and spirituous in an unfavourable situation, or they may not mature at all in a too rigorous or northern locality, but it does not thence arise that the grape loses its character any more than might be said of an orange tree, which when transplanted too far north should perish totally. For much as its product may be varied and modified by the operation of diverse causes on the maturity of the fruit, and by changes in the process of making wines; still the primitive character is maintained, and the same grape may be recognized; and however remote the countries may be in which it is planted, a doubt can scarcely exist but that a similar climate attended by the same mode of culture, and a like process in making the wine, will be attended with similar results. Numerous titles have been applied to the same vine in different districts, which have been by some supposed to have been influenced by attendant changes of character, but which are in fact the result of the simplest causes, and arise in the same manner that some of our best known apples or peaches, in transmission through our country, receive numerous appellations derived from the names of their owners or the fancy of their cultivators.

The vines of Madeira may be enumerated as succeeding among us to an eminent degree, exhibiting the greatest vigour in their growth, and yielding in favourable locations, fruit and wine which combine virtues equal to those whence they were derived.

In making our selections, the principal point to be observed in addition to the natural properties of the fruit, is the necessary applicability of the variety to the severity or mildness of the climate, a subject which has been already fully discussed in the chapter commencing at page 59.

It is however within the bounds of reasonable supposition, that species peculiar to any country with their attendant varieties, may in some cases possess a natural aptness or applicability to their respective regions. But even this peculiar adaptation subsides after removal by long culture; for it must be borne in mind, that the species of the vine now the most cultivated, was a stranger to all those countries where it now receives its fullest development; alike to the vineyards of France, Tokay, Spain, Oporto, the Cape, and the Madeira isles. And even in several of the West India islands, beneath a tropical sun, a number of varieties are successfully cultivated, a fact of which European writers seem to be absolutely ignorant.

The extent of our territory over which the vine culture may be advantageously diffused, will afford a subject for much speculation. A doctrine advanced by European writers, is, that the region of the maize culture is also that of the vine. This region in France extends from the Mediterranean coast nearly to the Loire, including Poitou, and the country south of a line from thence to Nancy. The wine country of France extends from the Mediterranean to the north of that line, since profitable vineyards are found in Champagne, Maine, Orleans, and the central part of Lorraine, where the maize is never cultivated as a crop. By parity of reason, the vine may be cultivated with equal profit, from the gulf of Mexico to those parts of the union which lie rather further to the north than where the maize or Indian corn is to be considered a sure crop.

So conscious of this character of adaptation to climate, are even the vignerons of other countries, that demands have already been made for our *native* varieties, to be transferred to other climes, and the author has already, at the request of his correspondents, transmitted a number of American varieties to Marseilles, Germany, and other parts of Europe, and even to Madeira; and it has been asserted, that an American vine introduced into France some years since, and known by the title of Bedford grape, is now held there in much estimation. This vine was carried from the town in Pennsylvania, whose name it bears, and is most probably the Alexander, and therefore not equal to many others of our natives.

The following remarks are from the pen of Professor Nuttall of Harvard University.

"It is probable that hybrids betwixt the European Vine, (*Vitis vinifera*) and those of the United States, would better answer the variable climates of North America, than the unacclimated vine of Europe. When a portion of the same industry shall have been bestowed upon the cultivation of the native vines of America, which has for so many ages and by so many nations, been devoted to the amelioration of *Vitis vinifera*, we cannot imagine that the citizens of the United States will be longer indebted to Europe for the luxury of wine. It is not however in the wilds of uncultivated nature that we are to obtain vines worthy of cultivation; were this the case, Europe would to the present have known no other Malus than the worthless austere crab, in place of the finest apple; no other Pyrus than the acerb and inedible Pyraster or stone Pear, from which cultivation has obtained all the other varieties. It is from seed that new and valuable varieties are invariably to be obtained. There is however at the present time, a variety of one of the native species cultivated under the name of 'Bland's grape,' a hybrid no way in my opinion inferior to some of the best European grapes."

The peach and the vine being natural productions of the same region of the east, the opinion has been uniformly adopted, that a climate favourable to the one could not fail to be suitable to the other. And where, let me ask, does the former thrive to a greater degree than in many sections of our country? From the shores of Long island, and even much farther north, to the most southern limits of the union, the peach flourishes and produces fruit of the highest quality. In the south of France and Italy, the culture of the more choice and delicious varieties had given to those climes a fame to cope with which required the possession by other countries of such as combined equal natural merits. The choicest they could boast have been latterly introduced among us, and we have also originated many most luscious seminal varieties; and those who possess them know from their own experience, and from the opinions of others who are familiar with the produce of the countries referred to, that in this fruit we have no longer a rival in Europe. Hence we may deduce the most sure prospects of an equal success for the vine, whose culture, when compared with that of the peach, is yet in its infancy.

The power, wealth, and happiness of France, are principally attributable to the foresight she has evinced in the introduction to her soil of the most valuable natural productions of other countries. It has been remarked that perhaps no enterprise in rural economy devised by the genius of a single man, has carried with it more important results than the first plantation of the mulberry in the garden of the Tuilleries, formed at the commencement of the seventeenth century, by the command of Henry IV. At this moment, though but little more than a century has elapsed, during only the latter part of which suitable attention has been paid to the culture of silk, the value of the raw material amounts to $4,700,000, and that of its fabrication to above $16,000,000, making a total of about $21,000,000. The olive, the almond, and the fig, were in like manner adopted in the agriculture of France, together with numerous other fruits of minor importance. The vines indigenous to her soil were absolutely worthless, and those originally brought from other countries were not superior in quality to many of the native kinds found in our forests; and the number of esteemed French varieties, even as late as the year 1720, was far less than we are already able to enumerate as the natural products of our woods and prairies, the spontaneous gifts of nature, unaided by the hand of man. Yet, at the present period, that adopted country of the vine has nearly 4,000,000 of acres devoted to its culture, which yield an annual product of one thousand millions of gallons, of the average value of more than $150,000,000.

And what country ever presented a more eligible theatre for agricultural pursuits than the United States? The land proprietors are not oppressed by feudal tenures, exorbitant taxes, vexatious tithes, or exhausting poor rates. The land is both fertile and cheap, and the great diversity of soil and climate seem to invite the introduction of the varied products of other climes. The country penetrated in every direction, even to its remotest bounds, by navigable rivers, and intersected by canals and artificial roads, offers every advantage for speedy transmission of its productions.

What a revolution has not the introduction of cotton already effected! What results does not the silk culture already promise us as our reward at no distant day!

The sugar cane, for which France and the residue of Europe are dependent on the Indies, already forms a most important item among our productions, and promises ere long to be ranked among our exports.

The product of the vine in like manner will be ours, with all its attendant advantages and blessings. The olive culture is already extending in the south; and the almond, the fig, the date, the orange, lemon, lime, citron, filbert, maron, pomegranate, guava, stone pine, and almost every other production which has been heretofore enumerated among our importations, are destined hereafter to become the abundant products of our own fields, and articles of supply to other nations. Such are the happy coincidences of country, of climate, and of government, that all which is required of us is but to exercise our judgment and our skill in perfecting the advantages which nature has so liberally tendered; by the exercise of which, the balance of trade, of wealth, and of power, cannot fail to be for ever secured to us.

The present extent of American vineyards, and the rapid advances now making in their formation, do not properly constitute part of the present volume; but on that subject the most ample and detailed information will be given in the ensuing one. I will here therefore only give some cursory remarks on that head from the pen of an intelligent writer of Pennsylvania.

"The vine culture seems to have become a favourite pursuit with the agriculturists of the present day, and forms an object of great promise in York county, Pa. Experiments have already shown that the vine will not only flourish in the poorer soils of that county, but that excellent wine can be made there, and that vineyards will become as profitable as any other agricultural pursuit. A portion of the lands in York county is poor and thin, commonly called barrens, and it has been proved that the vine succeeds well on it, and twenty acres of it, which can now be bought at from $6 to $10 per acre, when planted with vines, and at maturity, will be more productive to the owner than two hundred acres of the best land in the county, devoted to other culture. There are perhaps not less than thirty or forty vineyards within twenty miles of the borough of York, and nearly all commenced within three years. Should this disposition increase, and as a consequence the wine press be made to take the place of the distillery, it will benefit the morals of the community. Among what are called *civilized* nations, the vice of drunkenness has always been found to prevail most extensively where the vine is not cultivated; while on the other hand, where that culture is widely extended, the temperance of the people is proverbial."

Similar sentiments and like prospects of success seem to pervade all parts of our country where the culture of the vine has received merited attention; and the daily increasing devotion to the subject in the formation of additional vineyards, will ere long cause each section of our republic to respond to the efforts of the others.

The information which I have elicited on this head from every part of the union, and which will form part of the matter of the ensuing volume, evinces when concentrated, advances so much greater than could well have been anticipated at this early stage of our progress, that I doubt not it will strike with amazement even the most sanguine friends of the vine. Suffice it here to say, that a degree of perseverance and enthusiasm seems to pervade all the votaries of this delightful pursuit, and a warm and friendly interchange of views and sentiments exists among them, which has been comparatively unknown in other species of culture; and although the operators, from being disseminated over so great an extent of territory, are consequently more widely separated from each other, still the existence of a connecting link, by friendly cooperation in one common cause, may justly and appropriately assimilate their united exertions to that joyous period in the history of France, when during the reign of Probus, thousands of all ages and sexes united in one spontaneous and enthusiastic effort for the restoration of their vineyards. Nor indeed when the far greater limits of our territory are considered, can the combined efforts of our fellow-countrymen fail to produce effects even more important, from the greater extent of their influence.

The opinions of some political writers, that we should continue to import adulterated wines and spirits of all kinds, in order to afford the government the means of thence deriving a revenue of *a per centage on their value*, even at the sacrifice of the morals of the nation, and the diminution of its wealth, by a course seemingly less objectionable, because less direct; but which is not less fatal in exhausting our resources; seem fast merging to that oblivion, where the desire and the pride of a truly national independence should consign them; and we may hope that the day is not far distant, when America will fully establish and claim a rivalry with the most favoured lands of the vine and the olive, and proudly disclaim being tributary to any foreign clime.

HORTICULTURAL EXHIBITION.

At a meeting of the Pennsylvania Horticultural Society, held on Monday evening, August 9th:

Mr. *Parker* exhibited twenty-five varieties of Plums—1. Green Gage; 2. Red Gage; 3. Blue Gage; 4. White Egg, or Magoum Bonum; 3. Red Egg, or Magnum Bonum; 6. German Quetzer; 7. Blue Prune; 8. Wetherill's large round Blue; 9. French Copper; 10. Bingham's Yellow; 11. Vandyke's large yellow Egg; 12. Elfrey; 13. Yellow Gage; 14. Muscle; 15. Orleans; 16. Bulmer's Washington; 17. Queen Mother; 18. Parker's large yellow, a Seedling; 19. Parker's Early Copper; 20. Drap d'or; 21. Large Gage from a Nursery in New Jersey; 22. Cooper's; 23, 24, and 25, three seedling varieties of fine flavoured blue plums; several of the above varieties were accompanied with beautiful drawings: —three varieties of apples, the Summer Willing, White Doctor, and Maiden's Blush:—three varieties of Peaches, the Elizabethtown, Oldmixon, and a Seedling:—a leaf and flower of Arum Esculentum:—clusters of the Champney, Franklin Tea, and Pennsylvania Monthly Roses:—the flower and fruit of the Cactus Tuna:—fine double Balsams:—Helianthus Multiflorus and Rudbeckia Hista.

Richard Hill Morris, Esq. exhibited two dozen of Apricots, very large, as juicy as a Peach, and remarkably fine flavoured, taken from a tree which is uncommonly productive.

MISCELLANEOUS.

[We publish the following article with great pleasure. It was written, as it purports to have been, many years since, by an aged gentleman, for the instruction of his two sons, but one of whom is now living, and who has furnished it for publication. He says that he has found it a good guide in youth and in manhood, and now in *his* old age he wishes to leave it, not only to his children but to the youth of his country, as a trusty guide to their future conduct in life.]

A Last Advice to J. and E. P. by their Father, C. P.

My Dear Sons,—Life is precarious, and it is not likely that I shall remain long with you. The symptoms of a radical decay of constitution indicate the approach of my dissolution. And I can only say "the will of the Lord be done."

From the happiness which I enjoy in my family, in a social capacity, a continuation of life is flattering and truly desirable; but, particularly, on your account I wish to protract life to a more advanced period. My sons, I feel myself greatly interested in the turn you may take. Could I stay but long enough to guard you from the rocks and shoals which are so numerous, and so dangerous to youth, as just launching out into the troubled ocean of this life; and more especially, could I be so happy, as with success to direct your feet into the paths of virtue, religion and happiness, with a rational hope that you would persevere therein, the bed of death would be rendered comparatively soft, easy and comfortable.

As this is, however, a privilege which I do not expect to be favored with, I think it an indispensable duty now to testify the love which I bear to you as a father, who desires above all things to promote your interest and happiness through life and in death. In order to this I shall leave you a few cautionary hints and observations on paper, that you may, from a principle of filial duty, have recourse to *them*, as speaking for *me*, when I shall be silent in the dust.

Then, my sons, that you may derive some advantage from my age and experience, and the observations I have made, during my progress through life, for more than half a century, *attend* while I assure you, that your temporal happiness will greatly depend on the principles which you *have*, and may yet imbibe of *justice, honor* and *religion*. To acquire, and to maintain these principles with unshaken firmness and fidelity in your transactions both of a moral and religious nature, will secure to you the approbation of the wise and discerning part of mankind, and, what is infinitely more desirable and happifying, it will secure to you the enjoyment of an approving mind. It will at the same time inspire you with a rational hope in the divine approbation. This hope towards God is a source of consolation and support under the heaviest calamities of human life.

A dishonest man, who has no regard to the principles of *justice* and *equity* in his intercourse with the world, lives like *Cain*, in a state of self-condemnation, which excludes the possibility of his being happy. Sentiments of *honor* have no influence upon such a man. He is under the entire government of selfish principles. The interests of his neighbour cannot stand in competition with his own, which, when laid in the opposite scale, always preponderate. In the view of gain, he loses sight of reputation, and descends to such meannesses as often render him an object of just contempt. With their good opinion, men are induced to withdraw their confidence from such a man, leaving him to make his way through life the best way he can. This you will think a very uncomfortable state of dereliction; indeed it is. And I pray God that you may never fall into it.

To prevent this it will be necessary to act always on your guard. Never to be too self-confident, but rather jealous over your own heart; for such is the imperfection of human nature, that men are often deceived in themselves, while exposed to the eye of the world, in a very different light from that in which they are accustomed to view themselves.

Let me then entreat you to let simple honesty, and undisguised truth characterize your transactions, both civil and social, and particularly in your matters of trade and traffic. Honesty is, and will ever be found the best policy.

There is nothing more disgraceful to a man, than a disposition to deviate from the simplicity of truth, either by misrepresentations, prevarications, or a passion for idle story-telling, whereby some men who might otherwise have been respectable, have rendered themselves very ridiculous, and even contemptible. In respect to these things, I wish you never to be off your guard.

The world is envious and ill-natured. I have found it so, particularly since I became possessed of property. To possess more than some others, is a crime sufficient to make the naturally envious and splenetic one's enemies. From a general notion that wealth gives power and influence, those who may be below you in this respect, will always view you with a jealous eye, and be ever ready to misconstrue your best actions. When you see this observation verified, let it not excite your resentment, but endeavour to overcome *this evil with good;* at the same time maintain your firmness, in the exercise of religion, and those noble and manly virtues which I have mentioned. I have more than once seen such a conduct make an enemy ashamed of himself, and in some instances even convert him into a friend.

Be the disposition of the world towards you as it may, it will be your best policy, to be always closely united with each other, in the bonds of fraternal affection, a two-fold cord is not easily broken; counsel and advise each other, with candour and love. Do not, as I have known some brothers do, live at variance, and make parties against one another. Such live in disgrace, and are ridiculed by the partizans they make. Besides, as if under the curse of heaven, I never knew them do well. Therefore, my sons, "let brotherly love continue."

In respect to the conduct which I wish you to observe towards your mother, it is proper to observe, that it will always be no less your interest than your duty, to pay her every attention that would be proper and becoming to an own mother. To this she has a just claim, for sundry weighty reasons; as,

1st. Because she has treated *me, your father,* with every attention which might have a tendency to augment or increase a felicity which I have enjoyed in my union with her almost without jar or interruption; and, in a word, has in all respects been every thing that I could have wished or desired in a wife. May you have as much to say with equal truth, when you shall have been as long married, as I have been to her!

She has spirit, without which, no woman was ever good for any thing; she has also a considerable share of discernment, so that an impropriety of conduct towards her would be sure to be noticed, and perhaps excite a proper degree of resentment on her part; I must therefore, as a father who loves you, and wishes above all things else of a temporal nature, to promote your interest and happiness, request that you will observe the exactest propriety in your deportment towards her; that you will at all times, observe the strictest decorum, and that upon all occasions you will be kind and obliging. She is very capable of advising you in your affairs, no less so than myself, who have a thousand times been advised by *her*, and I now beg that you will attend to her *directions,* as to the wise counsels of a parent. To such attention from you she is, in the second place, entitled—

Because ever since she has been my wife she has been your mother also, not in *law only,* but in the exercise of an unwearied attention to what she thought would promote your interest, or rational gratification; indeed I have often been prompted by her in matters of indulgence towards you both. Then forget not to exercise the same tender care and indulgence towards her, in her disconsolate and widowed state, when I shall be no more to comfort her.

Look not for perfection in human nature; and make every possible allowance for age and infirmity. You may appear no less imperfect to *others* than they do to *you,* and when most disposed to blame, the fault may be most in yourselves; when we expect too much from others, we are sure to meet with disappointment.

I became possessed of a negro property by my union with your mother. This (though, alas! a most troublesome property) I have carefully kept for you as a sacred deposit. I have been so far from squandering or spending it, that I have carefully improved it, by all the frugality and economy I have been master of. The addition I have made, has been chiefly in lands and improvements. The lands I have procured for you are some of the most valuable in point of fertility, timber and conveniency to trade in the county. Care and industry, sobriety and economy, are all that are necessary to make you *wealthy* in a few years. But to be wealthy alone, is not sufficient to make you either happy or respectable. In order to *this,* you must be *prudent, wise, discreet,* and *affable* in your deportment, contented in the enjoyment of a competency, with which an indulgent Providence has blessed you, and above all things, you must never forget the liberal author of your blessings, but piously devote *yourselves* to *him,* and in all things imitate his benevolence in the exercise of charity and a diffusive good will towards men.

The moment you become *irreligious* and insensible of your obligations to God, you will begin to grow remiss in your duty towards men, and cease to be happy. You will ever find that the truest happiness results from an unshaken integrity in the exercise of your duty both towards God and towards your neighbour. I can truly say I have found it so, and when I have heard myself unjustly reproached, I have derived great consolation from the approbation of my own mind. I am however mortified on a retrospect, to think that my life has been so imperfect, and I wish you to improve on my imperfect example; and as you tender your happiness and respectability in life, be ever on your guard against whatever may tend to seduce you from the practice of *virtue, sobriety* and *economy;* lest you finally sink into *idleness, extravagancy,* and *dissipation,* which are sure to terminate in disgrace and misery.

You can never be treated with superior respect unless your conduct should entitle you to it, by its superiority to that of the vulgar and low-bred. *People* are generally better judges of merit than we think they are; and where it *really* is, it never fails to command less or more of respect and esteem. Unjust pretensions set a man in the light of a counterfeit,—a despicable pretender to what he is not.

They are often no less accurate in their judgment of what is becoming the character of a gentleman; and on the contrast of what fixes a disgraceful stain upon a conspicuous character.

The character of a christian and a gentleman are very consistent. The latter is highly improved by the softening and meliorating influence of the former I wish you, my sons, to unite them, that you may be in favour with both God and man.

To this end cultivate the softer tempers, in the exercise of resolution and firmness. Beware of giving up the reins to passion; unbridled passion will grow daily more and more turbulent, and at last spurn all restraint, from the rules of decency and good breeding. This renders a man a truly pitiable object. To manage *negroes* without the exercise of too much passion, is next to an impossibility, after our strongest endeavours to the contrary; I have found it so. I would therefore put you on your guard, lest their provocations should on some occasions transport you beyond the limits of decency and christian morality.

Let this consideration plead in their favour, and at all times mitigate your resentments. They are slaves for life. They are not stimulated to care and industry as white people are, who labour for themselves. They do not feel themselves *interested* in what they do, for arbitrary masters and mistresses; and their education is not such as can be expected to inspire them with sentiments of honor and gratitude. We may justly expect rather that an oppressive sense of their condition would naturally have a tendency to blunt all the finer feelings of nature, and render them callous to the ideas of honor and even honesty.

It will be necessary that you keep an *overseer,* and this will be attended with so much *expense* that it will require you to be very cautious, that your expenditure may not in the run of the year, exceed the clear income of your respective farms; and to fall back but a little every year, will soon destroy your small capital. Endeavour, therefore, to *gain a little* every succeeding year to the principal, without which you can live neither safe, easy, nor happy.

This will make it necessary that you keep exact accounts of *profit* and *loss,* also that you pay a close attention to the man into whose hands you entrust the management of your plantation affairs. Overseers are too generally very unfaithful in the discharge of the trust reposed in them. This never fails to injure the indolent and careless employer.

To make him attentive to your business be not too *familiar.* Familiarity will totally destroy your influence over him, and while you maintain a prudent reserve towards him, be not wanting in decent *respect* for him as a *man,* and a man whom you have honored with a trust. If he has any merit he will endeavour to deserve it—and if he has none, it may have a different effect; in this case it will be proper, if you can do better, to dismiss him.

Endeavour to treat your negroes well, and to get your plantations in the best order possible, as a change may take place sooner than is generally expected in respect to slavery.

Should that change take place, this low, laborious land will not suit you altogether. But as it is kindly to the production of wheat, you had better fall into the northward manner of farming. That is, to have meadow, to furnish hay for your stock in the winter, and have fewer hogs, that much corn may not be necessary. It would be advisable to get a man from the northward, to initiate you into this way of living, and their manner of husbandry.

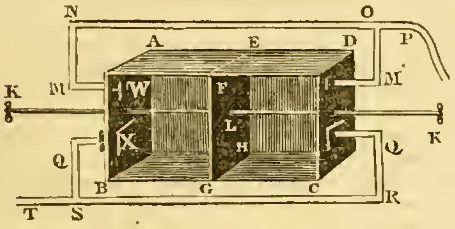
Should it please God to prolong your lives, you may think it best to sell your possessions in this low country, and to move westwardly. If you should, be sure to procure a good and convenient spot, and well situated for health; that is, *high,* and not having any low or marshy ground to the southward of the house. Such low lands if brought into cultivation are extremely unwholesome, from the copious exhalations which are thrown in upon a family by the southwardly winds, which prevail naturally in the summer season.

The lands which I have procured for you in Cumberland, are I hope good, and should you think of going to that country, they will be valuable—and although you might not approve their local situation, you will be able to sell them and buy where you would choose to live.

Above all things, strive to imbibe the *sacred spirit of religion;* it consists in the *love of God shed abroad in the heart.* This *love,* where it is, regulates the *conduct* of the christian towards every one with whom he may be conversant; it is *this principle,* and the *exercise* of it, that can make him happy, both in life and death—and it is this principle, namely, the love of God prevailing in *his soul* in *time,* that prepares the christian for the *full* and *final* enjoyment of *God in eternity,* where the righteous shine as the brightness of the firmament, and as the stars with undiminished splendor for ever and ever. May God almighty bless you, my sons, and make you better and more useful men than your affectionate father has had it in his power to be. C. P.

The above was drawn up without study or premeditation,—you will therefore, my sons, take it, not as a correct and studied performance, but as the friendly effusions of a father's heart. Taking it thus, I flatter myself you will let it have its due weight on both your hearts and lives. Vale, semper vale!

SAFETY PUMP.



Extracts from a communication to the New York Literary and Philosophical Society, on the *subject* of VENTILATION, by the Rev. J. F. Schroeder.

SAFETY PUMP, *for detecting and removing the noxious gas found in wells, cisterns, and reservoirs, &c.*

Gentlemen, Members of the Literary and Philosophical Society:

I now beg leave to invite your notice to the machine placed before you. Its object is to SAVE LIFE. During the past year, our public papers have again and again directed our attention to the fate of a number of our fellow-creatures, who have been hurried into an untimely grave, by the malignant influence of noxious air in wells. Descending without due precaution, into such wells as have contained deadly gasses, the unfortunate sufferers have thus been deprived of vital aliment, and have immediately perished. Even when the melancholy cause of the catastrophe has been discovered by the afflictive fate of one, there have been others, who could still boldly venture into the same reservoir of death. They have been unable to remove the deadly gas; yet they have wished, that the dead body of their companion might be obtained, and be interred according to the usual rite of Christian burial. Sometimes affection has induced a near relative or friend, to seek to rescue from their melancholy situation the remains of one beloved; and sometimes an inconsiderate precipation, a presumptuous rashness, has induced others, in the same cause, to make an unnecessary and unwarrantable risk of life. During the lapse of a few months, we have received accounts of many, in the different sections of our civil union, who, *by means of an apparatus, such as that now submitted to you,* might have been saved. They might thus have readily discovered the destroyer of their lives; they might, in a few moments, have expelled him from his secret lurking places; and they might also have been rescued from the miserable fate by which they perished—perhaps, unprepared to die.

To secure others from a similar calamity, the Safety Pump has been invented; and with this design, it is now respectfully proposed to your consideration.

A. B. C. D. is a box of wood, two feet long, one foot wide, and one foot deep. E. F. G. H. is a midriff, to be moved through the box, from end to end, by means of the rod K. K. which passes through the middle of the ends of the box, and is firmly attached to the midriff at L.

Each end of the box has two apertures, seven inches by four inches; each aperture has a valve; the two upper valves open inward; the two lower valves open outward; the valves opening outward move in tin boxes.

M. M. N. O. P. is the *inhaling-pipe,* which communicates, by means of a conduit, with the bottom of the well, the conduit being fastened to the pipe at P.

Q. Q. R. S. T. is the *exhaling-pipe.*

When the midriff is moved from A. B. to D. C. two cubic feet of noxious air may be inhaled from the well, and will pass into the pump through the valve W. and when the midriff is moved back to A. B the same air is exhaled through the valve X. and passes out of the exhaling pipe at T. This is true, in regard to the opposite end of the box; so that the operation of the pump is twofold.

The midriff may readily be moved through the box a hundred and twenty times in a minute; and the pump, which may be worked with great ease, if properly made, requires the labour of only two men or boys.

The following is the result of a practical application of the machine:

A new well, four feet in diameter, in the rear of Union Church, at the north east corner of Orange and Prince streets, in this city, was infected with a most deadly gas. On Friday, July 16th, a man, attempting to descend into it, was instantaneously deprived of life; and a few moments afterwards another shared the same miserable fate, in an attempt to rescue his unfortunate companion. On the following Tuesday morning, in company with some friends, I visited the melancholy scene of the calamity. We found the well, by actual measurement, to be 31 feet deep. On lowering a lighted candle into it, the flame, when it was six feet only from the surface of the earth was suddenly extinguished. Impure air, we inferred, must occupy the remaining space of 25 feet below.

The safety pump was placed on a bench, near the well; a tin conduit, attached to the inhaling pipe, extended to the bottom of the well, and another conduit, ten feet long, attached to the exhaling pipe, extended to an adjoining vacant lot of ground. The safety pump was worked.—Some of the vitiated air was then obtained in a glass receiver, placed at the end of the exhaling pipe; and by the application of the usual chemical tests, this vitiated air, was proved to be *carbonic acid gas,* or what is commonly termed *choak damp.*

When the safety pump had been in operation for the space of seven minutes, a lighted candle was again let down, and the flame was not extinguished until it had descended nearly twelve feet farther than before. The pump was worked again for ten minutes, and a candle being then let down to the very bottom of the well; burned there with a clear flame. In 17 minutes all the deadly gas was entirely expelled.

This experiment was made before a company of gentlemen, one of whom, Dr. S. B. Whiting, after the above operation of the safety pump, went to the bottom of the well and remained there for a time, without sustaining any injury, or any inconvenience.

There are various important purposes, to which the safety pump admits of being extensively and usefully applied. At some future meeting, I shall beg leave to call your notice to a few of these. My only object, at the present time, is to introduce the subject, in the hope that it may secure your kind indulgence, if not your full approbation. Whatever may be your voice, gentlemen, I shall enjoy the pleasing sentiment, that my aim has been to *save the lives of men,* and to afford at least to some of my fellow-mortals, increased opportunities to prepare for their eternal state. [*New York Enquirer.*

THE FARMER.

BALTIMORE, FRIDAY, SEPT. 3, 1830.

CHANGE OF PROPRIETORS.

The undersigned announces, with profound respect, to the subscribers to this journal, that his property in it, and in all the debts due to it, has been sold and transferred to Messrs. I. Irvine Hitchcock & Co. These gentlemen have engaged, as Editor, Mr. Gideon B. Smith, a gentleman well acquainted with the concerns of the American Farmer, and the manner of conducting it; and eminently well qualified to maintain its character and to give it even additional value and utility. The subscriber solicits therefore, with confidence, a continuance of that support, in the way of subscription and correspondence, which has been heretofore so liberally afforded to this, the first journal established for the *exclusive promotion of American Agriculture.* If its publication has contributed to essential and visible improvements in the various departments and processes of our husbandry and rural economy; the public is indebted for them to the talents and public spirit of numerous experienced and enlightened correspondents: for any share which the Editor may have had in accomplishing results so beneficial, he has been more than compensated by the too flattering acknowledgments of patriotic societies and citizens of eminent worth and talents throughout the country. He sincerely hopes that the interchange of good offices and the good will thus established may long, very long endure.

It may be proper to add, that, in relinquishing an establishment, which was commenced for amusement rather than profit; and which has been continued for nearly twelve years under the cheering assurance that it was attended with striking advantages to the best interests of the country; the subscriber has been in no small degree influenced by the apprehension that his continuance as Editor, might be supposed to involve some neglect or omission of his official duties as Postmaster—he is nevertheless conscious, that those duties have been faithfully executed; that no one can complain of neglect or ill treatment, and that all have been attended to with the most impartial and obliging disposition; yet, whatever may be his private convictions, he is not worthy of public esteem who disregards public opinion; the subscriber has never affected to do it, nor *could* he consistently either with his interest or his sense of duty.

Before parting finally with his patrons, he asks one favour—that they will *punctually fulfil* with his successors, their existing engagements. By so doing they will confirm their title to the grateful acknowledgments of their obliged friend and

Obedient servant, J. S. SKINNER.

By the above valedictory address of Mr. Skinner, it will be perceived, that he has retired from the editorship of the American Farmer—a situation which he has filled with distinguished ability for upwards of eleven years, with an advantage to his country, and a credit to himself, unparalleled in the annals of periodical publications. But we need not speak his eulogy—the whole field of American agriculture resounds with it; to him more than to any other person in this country, is justly due the credit of elevating the character of the husbandman; of improving his condition; and of "causing two blades of grass to grow, where but one grew before,"—which has been said, and truly, to be more worthy of monumental fame than the victories of heroes, or the achievements of statesmen.

Our predecessor has introduced his successors to the subscribers and patrons of the Farmer, in a manner which would seem to preclude the necessity of an introductory address; but the relation in which the undersigned is now placed towards them, suggests the propriety of following the custom in such cases, at least so far, as to state his views and intentions, and to solicit a continuance of their liberality, and support to the establishment now under his editorial charge. He is fully aware of the magnitude of the task he has undertaken—great and highly responsible at all times, but doubly so when the qualifications of the late Editor are considered,—and who has established for the Farmer a character, which it would require the best exertions of the most gifted to sustain. But even of this, he will not permit himself to despair, so long as he shall enjoy the friendly regard of his predecessor, and avail of his invaluable counsel—which he feels will be as paternally bestowed as it will be filially received.

Ardently devoted from his earliest days to the improvement of every condition of human life, and being particularly partial to agricultural pursuits, the undersigned finds his highest enjoyment in the performance of his present duties; for though the present is the commencement of his career in this capacity, agricultural subjects have been his study and the theme of his pen for many years; and his labours will afford him as grateful sensations when duty urges him on, as they did when pleasure alone smilingly invited him to the field.

The introduction of the culture of silk into the United States, has long been a subject of deep interest to him. When very few persons in the country could be found willing to believe in its practicability, much less to step forth as its champions, he took it up and has pursued it to the full extent of his powers to the present time, both by precept and example. This subject will continue to receive his attention; for the more he views it, the more thoroughly is he convinced that this country above all others is the best adapted to it; and he conceives he hazards little in predicting, that even the present generation will find in silk a principal staple of the country. In the course of his attention to this subject, he has collected much valuable information, which it will be his duty to lay before the public. But, in his editorial career no one branch of agriculture shall receive attention to the neglect of any other; for as all branches are embraced in the interests of his readers, it will be his duty to bestow equal attention upon all.

In conclusion, the undersigned would address himself to the *correspondents* of the American Farmer, and solicit a continuance of their invaluable contributions, to which his predecessor acknowledges himself so much indebted, and without which the present incumbent must utterly fail. All favours of this kind, however small, will be duly and gratefully acknowledged; and we would earnestly urge upon the attention of agriculturists the fact—which, Mr. Skinner has often done before—that the great value of the American Farmer, is attributable to its highly respectable correspondents. It is to the facility afforded by the press to the interchange of ideas, that the present improvement in all the departments of life is attributable, and in none more than in that of agriculture. We therefore earnestly invite the patrons of the American Farmer, to avail of our columns as a medium for this exchange of ideas—let each subscriber contribute something, and the whole will form an Encyclopedia of Agriculture to each. The subscriber's connexion with the Farmer office for some time past has made him acquainted with the character of many most valued writers, who formerly contributed to its columns, and he would respectfully suggest to them, that, like all other concerns of life, agriculture is a progressively improving science. and that there is yet much to be written, and much to be learned, before it shall arrive at that state of perfection which shall authorize them to lay down their pens. We invite them, therefore, to go with us to the field, and join us in planting and cultivating, with the hope of participating in the harvest of a good crop. Gideon B. Smith.

☞ All communications for the American Farmer, and all letters of business relating thereto (*the latter must hereafter be post-paid*,) must be addressed to the proprietors, "I. Irvine Hitchcock & Co." Those subscribers who are in arrears in their accounts at the office, will readily perceive the necessity of settling all arrearages with as little delay as possible, remitting the amount by mail as above directed at the risk of the publishers. Prompt attention by those concerned, to the above request, though it might be deemed an act of strict justice only, will *under existing circumstances* be viewed and acknowledged as a special favor.

Exchange Papers.—Editors with whom we exchange, are particularly requested to direct their papers to "*American Farmer.*"

As our exchange list has become burdensome, those editors who do not receive the Farmer hereafter, will please consider the exchange discontinued.

All communications for the Farmer shall either be published or acknowledged, in the number next succeeding their receipt; and, to save postage to subscribers, receipts for money will be enclosed in the succeeding number of the Farmer.

Progress of the Silk Culture.—An incident occurred in our office a day or two since, which we wish all the people of the United States could have witnessed. It was the exhibition of a specimen of American silk. Mr. Rapp, the respectable head of the society at Economy, in Pennsylvania, paid us a visit, wearing a most beautiful figured black silk vest, and black silk handkerchief, the material of which was made, from the worm to the loom, by his society. In a conversation with him he remarked, (what he had stated before in a letter to the Editor, published in a late number of the Farmer,) that they found no difficulty in any branch of the silk culture; that it was not more difficult than raising wheat, and much less laborious; and that he had little doubt that we should export silk in ten years. We feel assured, that no person who saw the vest and handkerchief, and heard Mr. Rapp's remarks upon the subject, could have harboured a doubt for another moment of the practicability of cultivating silk, as a staple in the United States. We shall, probably, shortly have a specimen of this silk in the office, and shall gratify our own feelings by exhibiting it to all who may find it convenient to call.

Bakewell Sheep.—We learn with pleasure, that John Barney, Esq. of Delaware, will be in Baltimore on Monday next, with a flock of his superior Bakewell sheep, intended for Robert Oliver, Esq. and Charles A. Barnitz, Esq. of York, Pa. He will also bring with him two rams and two ewes, of the same breed for sale.

INQUIRY.

Extract to the Editor, dated August 26th, 1830.

Will you ask some of your intelligent correspondents, in the next Farmer, for a cure for warts in horses?—I can find nothing in the books on the subject, and have a horse of good appearance doomed to the plough, because he has enormous warts on him, some as big as hen's eggs, and quite raw. I have also a filly, with a vast number of small ones covering the nose. It is a little remarkable, that the books are silent on this subject.—I hope some correspondent will aid me. Your most obedient servant. N. G.

Important to the Tobacco trade.—We learn, says the New York Mercantile, by letters from Paris, that the *concours* for tobacco (on sale by tender to the French government,) *is abolished*. The letters further state, that the *Regie*, having its full supplies of Virginia tobacco, for 1831, none will be wanted before 1832. This had been anticipated from a previous official communication recommending to the French merchants not to import tobacco with a view of selling it to the Regie.

Latest Foreign News.

By several arrivals we have intelligence from Europe to the 22nd July, the most interesting items of which are, the capture of Algiers by the French, and the prospect of the crops in England. Algiers was surrendered to the French army on the 5th July, after a severe contest of several days. The following are extracts from the official bulletin of the French commander:—

To His Excellency the President of the Council of Ministers.

La Casuba, July 5, 3 o'clock, P. M.

Prince—The opening of the fire before the fort of the Emperor was deferred till the 4th of July, in order that all the batteries might fire at once. I thought that by striking awe into the enemy on the very first day by a great superiority in our fire, I should abridge the duration of the operation.

The trenches were opened on the night of the 29th, after which the works were not interrupted a moment. During the night, and even in the hours when the workmen are generally relieved, the enemy's artillery fired but little. During the day the Turkish and Arab sharp shooters, protected by the bushes, stole into the ravines which were to the left of the attack. They wounded a pretty considerable number of men; but the troops were soon covered by *epaulements*.

We had reason to expect vigorous sallies. The occupation of the fort of the Emperor allowed the enemy to assemble without danger before the Casuba. They did not profit by this advantage. However, every thing was ready to give them a good reception.

The batteries had been erected with astonishing rapidity. Among the 26 pieces of artillery mounted in them, there were ten 24 pounders. six 16 pounders, four 10 inch mortars, and six 8 inch howitzers.

All was ready before daybreak on the 4th. At four o'clock in the morning, a rocket gave the signal, and the firing commenced; that of the enemy replied for three hours with much briskness. The Turkish gunners, though the wideness of the embrazures left them almost wholly exposed, remained bravely at their posts, but could not long contend against the skill and intrepidity of ours, whom Gen. La Hitte animated by his example and counsel. At 8 o'clock, the firing of the fort was silenced; that of our batteries continued to ruin the works. The order to make a breach had been given, and was beginning to be executed, when at 10 o'clock, a dreadful explosion caused part of the fort to disappear. Torrents of flame, clouds of dust and smoke, rose to a prodigious height; stones were thrown in all directions, but did not cause any serious accident.—Gen. Hurel, who commanded the trenches, did not lose a moment to pass over the space between our troops and the fort, and to place them in the midst of the ruins of it. It seems certain, that about nine o'clock, the troops who defended it, being discouraged, returned into the city, crying that they were sacrificed to no purpose, and that then the Dey ordered the powder-magazine in the fort to be blown up. At 2 o'clock a flag of truce was brought to me on the ruins of the fort Emperor. It was the Secretary to the Dey.

Here follows a detail of the negociation which resulted in the surrender of the city and public property to the French. The Dey has retired to a private house under the protection of the French army. The property captured had been officially announced to be 1500 pieces of artillery in bronze, more than 30 ships, the marine and military arsenals, and 55,000,000 of francs. (about $10,000,000.) The greatest tranquillity reigned in the city of Algiers at the last accounts, and the most cordial friendship existed between the French and the inhabitants: the latter treated their conquerors as liberators, and so considered them. The Algerines had estimated their loss at upwards of 10,000 men, killed and wounded; and that of the French, in killed, wounded or disabled from various causes, was computed at between 4000 and 5000: of this number, the killed and severely wounded amounted to about 1200.

The funeral of the late King of England took place on the 15th July, with the usual ceremonies, with the details of which the English papers are occupied.

A considerable advance had taken place in the prices of bread stuffs, in consequence of apprehensions of a bad harvest; but unexpected supplies had again depressed them.

The accounts of the state of the harvest in Ireland are most alarming.

London Corn Exchange, July 19.

There was a large arrival of English and Foreign Wheat last week, a fair return of other descriptions of Corn, and a great quantity of Flour. There is a small arrival of fresh up this morning of all kinds of Grain. The greater part of last week was very fine, but yesterday was extremely wet, and this morning showery. The millers hesitate to purchase Wheat at the present extravagant rates, as the top price of Flour remains unvaried, and the trade was very dull; however, some few select samples rather exceeded the terms of last Monday; all other qualities sold very heavily, chiefly to country buyers, at former prices.—Flour meets a moderate demand at former prices.

Liverpool Corn Market, July 19.

The advance noted in our early report was very fully supported at last Tuesday's market, and altho' the weather has been much more favorable prices have continued to improve. Free grain has become exceedingly scarce, and on Saturday fine Baltic red Wheats were sold at 11s 3d to 11s 6d, and Canadian as high as 12s per 70 lbs. which is an advance of fully 4d per bushel on last quoted prices. Bonded grain has advanced in an equal proportion, and there is little on sale. Flour is 1s to 2s, and Oat meal 2s to 3s per sack higher. Upwards of 20,000 brls. of Flour have changed hands, without producing any variation in prices; 32s to 34s are now the current rates.

Liverpool Cotton Market, July 19.

The demand for Cotton has again been extensive, the sales amounting to upwards of 34,400 bags, of which 3,000 Americans and 1,500 Brazil have been on speculation. The prices of Brazil have improved ½d, and the lower qualities of American descriptions 1-8d per lb.; but in other kinds no alteration has taken place. The demand for cottons continues very steady, at former rates; about 3,000 bags have been sold on Saturday and to-day.

Liverpool Corn Exchange, July 20.

The imports of Grain have been very trivial since our last. At this day's market the business done was very limited at advanced prices. Wheat, free, 2d a 3d; in bond, 6d a 8d per 70 lb. The duty on Wheat is this week reduced 2s per quarter—14½d per bbl. on Flour, and 1s 6d per quarter on Rye from foreign ports.—American Flour, sweet, 38s a 42s; sour, bond 28 a 30s 6d.

Extract from a letter, dated Liverpool, July 21.

Our Cotton market, after three weeks of great activity, became quiet yesterday—not more than 600 bales were sold—and, unless some speculators come forward, it may remain quiet for two or three weeks; but it cannot be so longer, as the spinners, with all they have lately taken, cannot keep out longer than three weeks. The weather is fine to-day, and Flour dull at 32s a 33s.

The Editors of the Journal of Commerce are favored, via Boston, with the letter of a very respectable house, dated Liverpool, July 21.

The continuance of fine weather for the past few days has checked the demand for bonded wheat and flour, and yesterday very little was done in those articles; prices remain nominally without alteration.

Another letter dated the 20th says—There have been some sales of flour in bond to-day at 34s But speculations depends entirely on the weather as the crop is not at all injured yet.

Harre Market.—On the 13th the cotton market was quite brisk, chiefly caused by the movements of the speculators. The sales of American extended to 1623 bags, as follows, 1060 Upland at 88 a 88½c. except 49 bales at 89½c; 190 Alabamas at 89c; 373 Tennessee at 83 a 86½c.

Prices Current in New York, August 28.

Bees-wax, yellow .20 a 22½. *Cotton*, New Orleans .11 a .13½; Upland, .10 a .12½; Alabama, .10 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .17. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 5.62½ a 5.75; Canal 5.75 a 6.00; Balt. Howard st. —— a ——; Richmond city mills, —— country, — a 5.62½; Alexand'a, 5.50 a 5.62½; Fredericksburg -—— Petersburg, 5.62½ a ——; Rye Flour, 3·75 a —— ; Indian Meal, per hbl. 2.75 a —— per hd 13.00 a 14.00. *Grain*, Wheat, North, —— a ——; Vir. 1.10 a 1.12; Rye, North, 64 a 66; Corn, Yel. Nor. .58 a 60; Barley, — a — Oats, South and North, .26 a .34; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 10.00; prime a 6.25 a 6.62½; cargo —— a —— Butter, N. York, 12½ a 15; shipping, 8 a 10; Lard, .11 a .12½; Pork, mess bbl. 14.00 a 14.75; prime 9.75 a 10.00; cargo ——.

Prices Current in Philadelphia, August 30.

Bees-wax, yellow .20 a .21; *Beans*, bushel $.75 a .80; *Beef*, mess 10.00 a —- prime 8 a 9, cargo 7; *Butter*, No. 1, 7 a 8, No. 2, 5. a 6; *Cotton*, New Orleans .11½ a .13; Upland 11 a 12, Tennessee 11 a 12, Alabama 11 a 12; *Feathers*, South. .32 a .33, West. .31 a .32; *Flax* .6 a .7. *Flour*, sup. 5.50; fine, 5.25 a —— Rye 3.50 a —— Corn meal, hds. 12.00 a —, bls. —— a 2.50; *Flaxseed*, cask 9.50; bu. 1.25 a ——; *Grain*, Wheat 1.03 a 1.06 Rye 50 a 52, Corn l. c. white, 48 a .50, l. c. yellow, 50 a .52, u. c. round, 54 a 56; Oats .26 a .28; Barley, Pa. .— a .—; do. East. — a —; black-eyed Peas .40 a .50. *Hams*, Jersey 11. a 12½, Virginia 10 a 11, Western 9 a 10. *Hemp*, 210 a 220; *Lard*, .- a .9; *Oil*, linseed, 78 a 79. *Pork*, mess, — a 14.50 ——, prime 12.00 a —; cargo 11. *Rice*, 2.25 a 2.75;, *Tobacco*, Kentucky .3 a .6, Vir. .3 a .05; *Wool*, common washed lb. .40 a .45, half blood .50 a 53. three quarters blood . 53a 57, full blood 58 a .60; unwashed, generally 10 cents less, according to quality.

Prices Current in Charleston, August 28.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 23. Upland, inferior and common .9 a .10, fair to good, .10 a 10¼, prime to choice, .10¾ a .11 5-8. *Rice*, prime, $2¾ a .3.00, inferior to good, do. $2.1-8 a .2.3-8. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5¾.—-*Corn*, .60 a .62. *Oats* 37 a .——; Peas, 65. *Hay*, prime Northern, 80 a 85. *Whiskey*, Philadelphia and Baltimore, hhds. .27 a .28; bbls. 28 a 29; New Orleans, old .32 a .33. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork*, Mess. .14 a 14½; Prime, .— a .11, scarce. *Bacon*, .7 a .— cents; Hams, .8½ a 9; Lard, 11 a 12. *Butter*, Goshen, .18 a .—; inferior, .8 a .10.

AGRICULTURAL WARE-HOUSE AND SEED-STORE,

No. 36, West Pratt-street, Baltimore.

ON HAND, and constantly manufacturing, a general assortment of AGRICULTURAL IMPLEMENTS, of the best materials and on the latest and most approved plans. The Subscriber's WHEAT FANS are of the latest improvement, and will be warranted to please. His Patented CYLINDRICAL STRAW CUTTERS have never been surpassed in this, or any other country, for durability, facility of cutting, and adaptation to any power and every kind of long forage; and also for cutting rags for making paper. All persons making, vending or using the aforesaid patented improvements without proper authority from the Patentee, must expect to meet the penalty of the law for all such offences. Also on hand, a general assortment of GARDEN SEEDS, grown and warranted by the Messrs. Landreths, of Philadelphia. J. S. EASTMAN.

ALMANAC.

1830. SEPTEMBER.	Sun. Rises.	Sun. Sets.	Length of days.	Moon. rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 4	5 35	6 25	12 50	7 20
Sunday,...... 5	5 36	6 24	12 48	8 02
Monday,..... 6	5 38	6 22	12 44	8 40
Tuesday,.... 7	5 39	6 21	12 42	9 22
Wednesday, 8	5 40	6 20	12 40	10 10
Thursday,... 9	5 42	6 18	12 36	11 00
Friday,....... 10	5 44	6 16	12 34	morn.

Moon—Last Quarter—9th, 10h. 53m.—Afternoon.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKETS.—The flour and grain market has been quite unsettled during the week, in consequence of rumours that the harvest in England would be affected by bad weather, and that the direct trade with the British colonies had been opened to our commerce. The experience of a few years past will have taught our farmers to place little dependence upon rumours relative to European crops just before harvest; and subsequent arrivals have contradicted the reports relative to the colonial trade. For a few hours this week best white wheat was held and some sales made at $1.18; but our quotations exhibit the prices at which transactions were effected yesterday. The advanced price of flour is owing more to the extreme scarcity than to any thing else—nearly all the mills which supply us with Howard street flour have been compelled to suspend grinding for want of water. The demand is also very limited, and no business doing worthy of remark. Our quotations of flour may therefore be considered nominal—the wagon price of Howard street yesterday was $5.50. Beef is plenty, dull, and of course depressed in price.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .18.00 a 28.00—St. Domingo, 8.00 a 15.00. The inspections of the week are 398 hhds Maryland, 28 hhds. Ohio; and 2 hhds. Pennsylvania, total 428 hhds.

FLOUR—best white wheat family, $6.25 *a* 6.50—super. Howard-street 5.62½ *a* 5.75-city mills, 5.37½ *a* 5.50 Susquehanna, ——; CORN MEAL, bbl. 2.25——GRAIN; best red wheat, 1.00 a 1.08;—-best white do. 1.06 a —— common red 90 *a* .95——CORN, white, .53 *a* .54 yellow .53 *a* .54—-RYE, .— *a* .50-——OATS, .25 *a* .26 BEANS, .90 *a* 1.00-PEAS, .50 *a*. 60-CLOVER SEED, .5.00 TIMOTHY, 2.00 *a* 2.50—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, .75 *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, -FLAXSEED, 87½--COTTON, Vir. 9½ *a* 10½--Lou. 11¼ *a* 12½ —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 10 *a* 12-WHISKEY, hhds. 1st p. .28 *a* —; in bbls 30 *a* ——WOOL, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $210 *a* —; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, 5.50, *a* 5.62½ No. 2, 4.87 *a* 5.00—No. 3, 3.87 *a* 4.00-BACON, hams, Balt. cured, 10c.-Feathers, 34 *a* 35—Plaster Paris, cargo price per ton, 4.37½ *a* —ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.00 *a* 4.25—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

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AGRICULTURE.

(From the Western Tiller.)

On the making of Sugar from Beets, in a letter from the Hon. William Johnson of South Carolina, to the Hon. Jacob Burnet, Ohio.

(Concluded from page 194.)

The French have three modes of seeding; the first is to sow broadcast, leaving a balk or open space between the beds, for the purpose of receiving, by transplantation. the superabundant production of the space sown. When the plants attain the length of the finger, they turn in a numerous force of low priced hands and thin out the beds sown, filling up first the spaces on those beds where the seed has failed, and transplanting the rest to the balks between.

The second method is to sow, in fact, a nursery very thick, and when the root is near as thick as the finger, to thin it out, leaving as many as can be reared in the nursery, and setting out the rest in land properly prepared to receive them. The last, and in my opinion the only one which ought to be adopted is to drill it. This the author recommends strongly as the best mode. And it seems that they have adopted into use the English horse-drill, and some other machines of the same kind of their own invention. But I fear we shall find very little land in our country in sufficient tilth to admit of the use of such machines, and which at least are, perhaps, only adapted to the use of your gentleman farmers, who are more attached to a neat operation than a profitable one. If the beet is to be cultivated extensively in our country, it must be effected according to our own agricultural habits. I calculate on the use of the plough; this will require three feet between the rows. The trench may be traced with a small drill-plough and the seed is not too small to be dropped by the hand and covered by the foot.—This is the work of inferior and cheap hands and may be economically applied, even when you intend to cultivate with the hoe, in which alternative the drills may be two feet apart. By crossing the drill with a coulter at a foot apart, your seed may be laid as regularly as you please. It will always be prudent to drop two or three seed where you mean only one plant to remain. It guards against the accidental failure of the seed and furnishes a supply for transplanting to places where total failures may occur.

The foot pressed upon the place where the seed is dropped will generally give it a sufficient covering, which ought not to exceed an inch of light earth, calculated to settle down to half an inch.

Attending the crops. This is very simple; it consists only in keeping the earth stirred and the weeds down, and if the roots show a great tendency to rise above the surface, throw a light covering of earth on each side by the plough or hoe. The hoe must indispensably be used, since working between the plants can only be effected by it, and the narrow tobacco hoe will be found best adapted to the purpose. The leaves soon spread and keep down the grass by covering the earth. When this takes place, of course the plough must be laid aside. Some persons gather the large leaves for their stock. But this process if ever to be recommended requires so much judgment in the execution that it had better be dispensed with.

Harvesting the Beet. The beet is, generally, a biennial plant, not seeding until its second year; yet this rule seems not to be general, or perhaps the characteristic may be lost by repeated production in a southern climate, or is not found equally existing in every species. I have three varieties now under my eye, the common red, the yellow, and the red turnip rooted, all planted at the same time. The two former have not seeded, but the latter is in full bearing. Yet in four or five years cultivation of the turnip rooted beet, (which have not long been introduced here,) I have never experienced the same thing before, except very partially.—There may be something peculiar in the species, for it is the only variety that I would cultivate in this vicinity.

The fact that the beet generally, is a biennial plant would seem to lead to one of two conclusions, either that frost cannot kill the root, or that it is best adapted to a mild climate, contrary to the opinion of our author. It is obvious that in a native state the root of a biennial plant must live through the exposure of one winter, otherwise it becomes extinct in one year. In this climate and probably some degrees farther north, the cold never freezes it, and seldom retards its growth. We sow it in September and October, and never think of drawing it, except for immediate use, or sheltering it at all. But in France it is otherwise, and is so in our eastern states where it is cultivated for export. This would seem to give us in the south an advantage in cultivating the beet, but it is very inconsiderable when duly estimated. The root must be drawn and transplanted to the factory in any climate; and what it may gain with us in size during the winter, would probably be lost in the quality of the juice. While that which is gathered and housed in the north would be improving in value by the escape of the aqueous particles.

When the root has attained the maturity for making sugar, it is discovered by red spots appearing on the leaves, which then begin to roll up and incline to the earth. This occurs, in France, in September and October, and can always be verified by the hydrometer, or by actual experiment. The process of making sugar then commences, and the mill is supplied for some time, direct from the field. As the cold increases, the roots are deposited in proper places of shelter, or in the warehouses of the mill. Very minute instructions are given for performing, economically this, which is by far the most laborious operation to the cultivator. But the whole process consists in drawing the roots, cutting off the crowns, and piling or transporting them to market, or to the cellar, or house of deposite. All this may very well be left to the judgment and means of the cultivator. Two things, however, it may be well to notice. The first is the great advantage of gathering the roots in a dry time, they are more easily extricated, the earth can be shaken from the roots without washing, and the juice is always much more productive. The other is, that the labor of cutting off the heads is much facilitated by having the roots laid in lines, with their crowns toward each other, leaving an alley for the operator, through which he walks with a knife fixed obliquely to the end of a staff, and thus cuts each head with a single effort and downward motion. The heads then lie conveniently either to be covered in for manure, or to be gathered and cured or transported for the stock.

Profit. In his eighth chapter, the author commences, elaborately, this all absorbing subject. And he does it first upon actual experiment, secondly, upon calculations founded upon ascertained facts. But the latter, although seemingly upon very reasonable assumptions, greatly overgoes the result of the former. It is obvious that calculations of *profit* made upon the price of land, labour, manures, &c. in France, can afford no adequate means of determining the question of profit in our country. But the *quantity in proportion to the land* cultivated may be approached, if not determined. Accordingly from an average of crops obtained from ten respectable farmers, in the same year, he finds the quantity produced to be 23,751 kilogrammes, about 47,500 pounds the hectare.* Varying individually from 12,500k. to 37,500k. to the hectare. With this product, however, the author assigns very plausible reasons for being greatly dissatisfied; for if the hectare contains about 95,259 square feet, and each square foot will produce a root of a kilogramme in weight, it follows that each hectare should produce 95,259 kilogrammes, or about 180.518 lbs. of roots, which he says he has no doubt that the rich plains of the north of France will produce.

Let us present a calculation adapted to our own language and experience. We know, here, from actual experiment, that two square feet can be made to produce a beet weighing eleven or twelve pounds, but to be very moderate, we will take an acre of land, our measure. planted in beets one foot apart, and allow three feet between the drill. This gives a beet for every three feet, superficial measure, to which we may fairly allow four pounds weight. We will take the acre, for round numbers, to contain 44,000 square feet, which, divided by 3, will give us 14,666 beets. Estimating these at 4 lbs. each, we shall have a product of 58,664 pounds of root. The beet may be made to yield 97 or 8 per cent. of juice, if properly operated upon, but we will take it at 60 per cent. which is the lowest product, and that yields us, in round numbers, 35,000 lbs. of juice, which at 5 per cent. produces 1750 lbs. of brown sugar, besides the molasses.

This is little inferior to sugar cane, and compared with most other articles of cultivation immensely profitable. To cover casualties, we will reduce it to one half, and if the sugar yields but six cents per pound, the product realized will be very great per acre.

Preparation of the beet root. This the author regards as the most indispensable requisite to the success of sugar making, and the greatest difficulty attending this branch of agriculture. "If," says he, "we could gather it as it was wanted, as they do with cane, every difficulty would vanish." If this be literally true, it certainly leaves a great advantage in favor of those regions in which the climate renders it practicable.

"The preservation," he observes "during four months at least, is indispensable, for if it be proposed to work off a whole crop without housing any part, it would require means of such extent as would turn the scale of profit against the article. Besides that, one of the great advantages of its culture is that it furnishes moist food for animals, during the severe season; an advantage which would be lost if it were worked off in a short time, since the pulp would spoil before it could be consumed."

As the vegetative force of the beet continues after it is drawn, it is obvious that it must remain subject to important changes, and it would seem that some of these changes are favorable and some unfavorable to the production of sugar; since, according to our author, it has been found that the juice sometimes will not crystalize, and thus the operator is compelled to resort to distillation in order to indemnify himself. And yet, by suffering the beet to remain somewhat longer it produced very fine sugar.

Heat, generated from the mass of beets itself, appears to be the greatest evil to be dreaded, and this is avoided by not piling them in large masses and admitting as much air as will preserve a temperature from 10° of Reaumur down to the freezing point. It is probable, I will suggest, that if stacked in low ricks upon layers of corn stocks or rye straw this danger would be avoided, and the roots might probably be thus preserved in stacks in the open field, covered well with straw secured from being blown off.

A free circulation of air, as far as is consistent with avoiding freezing, is found never to injure the beet; on the contrary, although it causes it to lose half its weight by evaporation, the sugar remains, and is more easily developed, although the difficulty of reducing the pulp is increased; nor does it destroy its vegetative power, since if immersed in water it soon resumes its plumpness and tenderness. The crown however must not be wounded.

Effects of frost. The beet will not freeze until the cold reaches from three to seven degrees below the freezing point; and then it suffers no injury for the purpose of making sugar, except that it is more difficult to grind. But after freezing if not worked off before a thaw ensues, it will certainly rot. Exposing it to sudden and great changes of temperature is found also to predispose it to rot.

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* A kilogramme is a little more than two lbs.—A hectare a little above two acres.

There are five modes by which the beet is preserved in France, through the winter, viz:—1st, in the open air; 2d, in ditches; 3d, in cellars; 4th, in store houses; 5th, in a mode recommended by the author.

The first is by piling it in convenient, dry, accessible places, covering it well with straw or leaves and some add a covering of earth like that of a coal kiln.

The second is by digging ditches of such length as the crop may require, and after filling them and piling the roots up somewhat above the surface to cover the whole with earth so as to turn the rain, or with straw or leaves and then with earth. This mode is recommended for convenience and is found quite sufficient, provided the ditch be quite dry and not above four or five feet wide. It is favorable to preserving a regular temperature, and the root is not apt to ferment when the ditch is not above five feet wide and three deep.

3. The preservation in cellars, partakes of the same advantages provided they are dry and ventilated and the root is not piled in too large a mass.

4. Barns or store houses admit of the most perfect preservation, but care must be taken not to pile the roots too high, to deprive them of a circulation of air, or in any mode to increase the mass so as to produce fermentation.

5. The improvement recommended by the author, consists only in providing the means of warming and ventilating at pleasure, a long narrow warehouse, so as to preserve the plants from freezing in time of severe cold, and to facilitate the evaporation of the aqueous particles, as much as may be deemed advisable.

Making Sugar from the Beet.

Achard, in his experiments, extracted the sugar by slicing and drying the root, and then soaking it in water until the sugar was extracted. The water was then evaporated by boiling, and the crystals of sugar remained. However perfect this mode, it is obviously not calculated for prosecuting the undertaking on a large scale. Yet Achard thought otherwise, and considered it as both practical and profitable.

The extraction of sugar from the beet, appears not to have succeeded thoroughly in France, until the year 1812, when Derosne applied animal labour to the manufacturing and refining of sugar. Until this time, our author observes, "the course of cultivation, the ignorance of many manufacturers, political events, and the imperfection of the mode and manner, retarded the erection of what is now the most beautiful column of French agriculture."

The great majority of the French manufacturers of beet sugar, prefer to proceed by what they call "the process of continuity," that is, never letting it cool or granulate, but passing it immediately through the process necessary for converting it into loaf sugar. And, although our author disapproves of this course, yet I must think it is attended with a great saving of labor, time, and fuel.

The first act, preparatory to obtaining the juice from the beet, is to scrape it clean from the earth and fibres which adhere to it, to this some add a washing, and if any of the beets are of too large a size to pass into the mill, they are cut or quartered longitudinally at the same time. The washing is most conveniently effected by dipping baskets of them into running water. But, as the sand and earth will subside from the juice, this cleansing is not deemed an indispensable operation.

The pulp is then reduced as fine as possible, in a mill, which the French call a grator. There are three mills of this description presented by the author, but I shall describe to you the only one I think tolerable. You have only to take to pieces an old fashioned Dutch coffee mill, fixed in a box, and depositing the ground coffee in a drawer, to understand the structure of this mill. It is a truncated cone fixed vertically with the base upwards and revolving horizontally in the hollow of another cone, the outer surface of one and the inner surface of the other being armed with teeth, arranged spirally. But, for this part of the operation, I can see no reason why your apple mills and presses may not be brought into requisition. Certain I am that our cob mills and cotton screws would answer our purposes. Here, however, we come upon the forte of our countrymen. You only have to give out that you want a certain operation performed, and there is little cause to doubt that a machine will be speedily invented or improved to do it in the best mode possible. The object at this stage is to apply the most effectual and economical mode of reducing the beet to the consistency of paste. For pressing, we already have machines of almost unlimited power. But I strongly suspect that both operations would soon be united in a series of pairs of sugar-rollers, fixed horizontally, one pair above the other, and the lower pair perhaps pressed on each other by a spring.

This is a very material operation, since if perfect, it will give you 92 or 95 per cent. of juice, and in general, is so imperfect as to yield only sixty to seventy per cent. There is great room there for improvement.

Perhaps, however, I may undervalue Mons. Odobbel's mill, since it is said to pass about 8000 lbs. of beet root per hour. This is doing a great deal of work, and it is said to cost only from 1,500 to 2,000 francs. When projected, to be worked by four horses, and requiring the attendance of only two hands—one to throw in the beets, and the other to clear away the pulp. A boy I presume must be employed in driving the horses.

It is laid down as to this department of the work, that it should be carried in just so fast as to keep the press employed, since the action of the air disposes the pulp to turn black. Also, that the mill must be washed once a day to clear it of any part of the pulp which may adhere and turn sour.

Moving Power—Every kind of moving power is used in France, but oxen are supposed to be most economical, since they may be supported on the pulp after passing the press. Steam I suppose will among us, soon assert its legitimate supremacy.

Expressing the Juice.—The French fill the pulp into canvass bags to subject it to the press. It is possible our ingenuity may suggest some more economical means. This, however, is certainly recommended by the facility it gives to transportation and other movements. Their presses are of all kinds, up to the hydraulic press, complete and philosophical, but expensive. On this operation we need little instruction, since our cotton screws may be applied with complete effect.

It is remarked on this process that the grinding and pressing should proceed with activity, as it is of importance that the juice should undergo as soon as possible, what the French call a defecation, or separation of the feces, by which is meant the precipitation or subsiding of all extraneous substances suspended in the combination of sugar and water—thus preparing the juice for the process of evaporation.

An attempt at the rationale of producing sugar from the beet-juice will tend to give us a general acquaintance with our subject. It will be found to vary but little from the process of making sugar from the cane. In all the buildings, arrangements, apparatus and conveniences, it would be safe to borrow from the experience of our fellow-citizens at the mouth of the Mississippi, or the more simple, and not less ingenious resources of the small producers in the south-west of Georgia, whose whole apparatus consists of a trough, or a cider mill and press and a clothes kettle.

Our author gives us a very minute description of the structure, apparatus and operation of the mills and boilers in use in France, and concludes with a very learned chemical analysis of the beet-juice. I confine myself to that general kind of information which is necessary to the practical cultivator and the manufacturer.

Besides the solution of sugar in water, which is the prevailing substance in the beet-juice, there is invariably found in it a proportion of mucilage, of leaves and of gum. These it is indispensable to separate by warming, skimming, and precipitation, or both, before the process of evaporation can be successfully prosecuted.—The most common mode of doing this, as well in operating upon the beet-juice as the cane, is by the use of lime. The French chemists and manufacturers find it to be more effectually done by the aid of sulphuric acid as well as lime. The action of both of which is invariably promoted by moderate heat, with continual skimming.

It is here that the only difficulties exist in boiling sugar; for nothing but experience can enable the operator to judge precisely what quantity of these substances to administer in each particular case. In general, the quantity is very small, and the expense attending it trifling; but the facility of the process, as well as the perfection of the sugar, depends greatly on hitting the just medium. This would greatly recommend a division of the labour between the cultivator and manufacturer. But the expense of transportation is the obstacle, and hence generally our sugar planters manufacture for themselves, and their success would seem to indicate that there is little difficulty in acquiring the necessary degree of knowledge in this department. I will briefly detail the instruction given by the author in using the lime alone, and I believe it varies but little from the practice of others in making sugar from cane. This is called method 1st, or the colonial.

We will take fifty gallons as the quantity of liquor to be acted upon. You weigh out eight pounds of lime slacked and sifted. Mix it with as much water as will make it into a white fluid like milk.—Heat your liquor to about 60 or 65 degrees of Reaumur, and when the lime has settled so as to leave the water clear, pour the water in and stir it well for a few minutes. Then take up a portion of the liquid into a clear glass, and by holding it up to the light, you will perceive in it clouds or flakes gathering and subsiding rapidly, if it has had liming enough. If the motion is sluggish and the sediment thin, or in small quantities, the liming must be increased in moderate quantities until the desired effect is produced. The solution of from three quarters to a pound, is recommended as the quantity which may be safely used successively until the effect is produced.

The quantity here recommended is considered as the minimum, and therefore quite safe. When the proper quantity is determined by one or two experiments on the contents of the same vessel, the same can be repeated without apprehension. Yet it is safe to make experiments from time to time as the season advances and the juice becomes inspissated by natural causes, or whenever a new species, or new purchase of the root is entered upon.

The point to be attained in this experiment is to administer just as much lime as is necessary to purify without impoverishing the liquor. And this the author asserts is what the operator should endeavor to obtain *above all things.*

When it is ascertained that the lime is sufficient to make the feces subside perfectly, the liquor is left to cool and settle, and when quite clear, is drawn off carefully from the feces into another boiler.

Should it happen from any cause that the liquor cannot be forthwith subjected to the process of defecation, a fermentation ensues, and it may suffer such a deterioration as to produce only molasses or treacle for distillation. This is discovered by the quantity and swelling of the froth in the boilers, and to prevent it, it is thought advisable, when the juice cannot be immediately let into the first boiler, to administer a portion, say one half, of the liming in its cold state, while yet in the trough.

Along with the defecation, the colour is always changed, becoming of a lightish grey, or something approaching it. An effectual defecation is deemed so indispensable to making sugar, that it is thought advisable, rather to administer too much lime than too little.

The objections to this most simple mode of defecation are, that it is an invariable law of the process, that the lime destroys a part of the sugar; and if too much is administered, it communicates a bad taste and smell to both the sugar and molasses, and rendering the sugar less fit for the purposes of refining; and this gave rise to the improved method of making sugar, called the French method.

This consists in first using the lime and then in neutralizing the alkaline quality, thus communicated to the juice, by means of sulphuric acid. This is said to be altogether a French improvement, but by whom invented is unknown. It has however, the respectable name of Chaptal to recommend it, and appears to differ in nothing as to the use of the acid, from the method of Achard, except in using the acid subsequent to the application of the lime.

The rationale of it is this:—The lime uniting with the solution of sugar, alkalizes it to a degree, which is unfavorable to the further process of concentrating and crystalizing the sugar. The acid is therefore used in order to reduce without absolutely neutralizing the alkali. The verification of the quantity necessary is thus obtained, a small quantity, say a quart or gallon of the defecated juice is taken up, and the acid mixed in it gradually in ascertained quantities, until the desired state of acidification is produced. This is ascertained by mixing a drop of the juice with a drop of the syrup of violets. The alkali turns it green, and must be reduced by the acid, until the tinge of green becomes just discernable.

This, it must be remembered, is an improvement, not an indispensable part of the process.

Concentration.—When the juice has been thus medicated, it soon becomes limpid, and is then carefully drawn off into another cauldron, in which it is boiled and skimmed until its density be increased to about 30 degrees of the ærometer, or about, say, a third in quantity, when it undergoes another medication, with a view to crystalizing it. This is what the author calls clarification, and it may be effected by any of those substances usually employed for that purpose, such as blood, milk, white of eggs, &c. But the method recommended, and which seems to be generally adopted, is to use the animal carbon, which is now manufactured for that use. It is the colored residuum of burnt bones, or any other animal substance subjected to the process of carbonation. Our large cities will soon furnish an abundance of it, whenever a demand arises.—It is a comparatively cheap article, and need not disgust us, since it has attained to all the purity that fire can produce, before it is used.

The object in using it, is to precipitate all colouring matter from the juice as well as any extraneous substances, which may still remain suspended in or combined with the fluid, as well as much of the lime and acid previously used; and such are said to be its beneficial effects, as to cause the beet to yield 33½ per cent. more sugar than it will without it.

As quantity can do no harm, I believe the only rule necessary in using the animal carbon, is to throw it into the boiling fluid, until the latter becomes limpid and colourless. A pound is generally enough for five or six gallons, and it is not necessarily lost in the use. This also appears to be an improvement, not an indispensable condition in making sugar. But certainly not to be neglected if its use be so very beneficial as is represented.

The quantity necessary in a large operation can be determined in the same mode, with the lime or sulphuric acid, by experiment on a small scale. Some manufacturers, it appears, add to this preparation a filtration through woollen cloths which is represented to have its advantages.

All that remains is the ordinary process of sugar making, concerning which you may obtain the most perfect practical information at the mouth of your river. It consists in evaporating the water by boiling until the liquid will crystalize. On this subject I will conclude with giving you a few hints which you may regard as verifications or results of my own little experience.

The liquor when boiled down to the point of crystalization is still in such a state of fluidity as leads an inexperienced operator to doubt if it will granulate; and there are many tests furnished by this and other books for determining the crystalizing point. I will not repeat them, but give a brief practical hint or two on which I know that you may rely.

When the liquor approaches that point it is discovered by a great tendency to rise and overflow the cauldron, as every one has seen who ever boiled sweetmeats or sugar-candy: the increased tenacity of the fluid prevents the escape of the air. A little fat thrown into the pot then reduces it to command. When this indication decidedly appears, the most usual method is to try if the liquid will rope between the thumb and fore finger, about an inch or more, as it cools. But if you will only let a drop of the hot liquor fall into a tumbler of cold water, you will soon have every doubt dissipated; for if not boiled enough it will mix or be suspended in the water, whereas otherwise, the drop sinks freely to the bottom; this shows its increased density. You may then take it off and stir it until the granulation is distinctly developed. All that remains to be done is the mechanical operation of draining and drying.

If you ever should superintend an experiment on making sugar, I would claim your attention to one subject. If, after the granulation is fully developed, you will deposite a portion of the mass in a close vessel to cool, you will find that as the sugar settles, there remains on its surface an inspissated fluid of a peculiarly delicate sweetness. This is the treacle; and I take it for granted that the whole mass, had it been taken from the fire a little before it had been boiled down to the state proper for granulation would upon cooling have exhibited the same appearance and properties.—Now, for my own use I should prefer that treacle greatly to the granulated sugar, and I am inclined to adopt the opinion that if ever we should get over certain habits and prejudices on this subject, the treacle or inspissated liquor would supercede the granulated substance in common use. If so, I am inclined to think we might dispense with lime, acid and carbon, and have a more pleasant substance, in place of sugar, produced with greater certainty and much less trouble, and if deposited in good casks, subject it to less loss and fewer casualties, nor need it, I suspect, exceed 40 or 50 cents the gallon, to give the planter an equal profit with sugar.

I observed before, that it was common in France for the manufacturer to carry on his process of refining to the point necessary to produce loaf sugar. Our author says that the beet sugar is not only as proper for this purpose as any other—but that it yields a greater proportion to the pound. This I presume would be an important accession to the manufacturer of our interior, and it presents one of those intimate and immediate alliances between agricultural and manufacturing industry, which may well be set down as among the most certain and most abundant sources of national prosperity.

Need I suggest to you the feelings of the philanthropist, when contemplating the possibility, that this most general and growing want of the world—this pabulum of a most extended and productive commerce, hitherto the monopoly of slave labour, and the South, shall become the product of free labour, and the equal property of the North, the South, the East and the West.

I as a southern man and a slave holder, can look forward to it with the most pleasing anticipations. Will it not identify your feelings and interests with ours, by increasing your agricultural profits and habits? Your fine country predisposes you to live by tilling the soil, and while your agriculture is productive, it will take much to turn your industry into any other channel. I should rejoice also to see you in the full participation of the benefits of this valuable staple. I fear that the exclusive enjoyment of *all* the valuable staples of our country, is but too well calculated to foster envious feelings: yet, if you were all aware of what we have to sacrifice and suffer for their enjoyment, you would find that Providence, as usual, has fairly balanced our accounts.

And should you succeed in taking this branch of industry all to yourselves, still we must retain the rice, and cotton, and indigo, and may resort to an hundred abandoned sources, in which our ancestors prospered.

I must give you one caution in forming an estimate of the relative products of the cane, and the beet. All the experiments recorded, from which is deduced the proportion of five per cent. from the beet, establish a ratio with reference to the weight of the *root*. If the same thing were done with regard to the weight of the cane, I am confident that it would not come up to the proportion of the beet. Twelve and a half per cent. or one eighth of the weight of the *juice*, is I think considered as the fair product of the juice of the cane. Now I have taken 60 per cent. as the product of juice from the beet. And if sixty pounds of juice will yield five pounds of sugar, the beet produces just two-thirds as much sugar as the cane.

It is with pride and pleasure, I subscribe myself,

Your friend, W. J.

(From the United States Literary Advertiser.)

FARMING.

Those who have strictly investigated the subject, consider large farms comparatively less productive than small ones; while they at the same time impose upon their owners a degree of labour much greater in proportion than would seem to be required by the mere difference of size. The cause, it is thought, lies altogether in the difference of management. A farmer in moderate circumstances, with fifty or sixty acres of land, for instance, will bring every inch of it into a high state of cultivation—the labor employed in preparing his grounds will be more than doubly compensated in his subsequent exemption from toil; while the owner of a wide spread territory of three or four hundred acres, which he has but sparingly supplied with nourishment, must work more sedulously upon every acre during the progress of vegetation; and, after all, reap but a meagre and inadequate harvest. As a single acre of land highly cultivated, can be made to yield a crop equal to three or four acres scantily prepared; it must be obvious, that the extra labor in dressing the former is abundantly more than saved by the diminished labor in attending it. A striking exemplification of this fact may be viewed by any of our farmers, who will take the trouble to visit the grounds attached to the House of Industry at South Boston—there, they may have the theory and the illustration directly before their eyes. Those grounds, it is said, have produced this season, from three to four tons of hay per acre—which is three or four times the quantity of ordinary crops. So exuberant was the grass, that there actually was not room; upon the surface where it grew, sufficient for the purpose of making the hay. And this was entirely owing, as we are told, to the previous pains taken to enrich the soil by plentiful additions of suitable compost.

Were the same policy pursued by the owners of large farms, there would be little need of emigration from the New England to the western states; for the very tracts which now, under a careless system of culture, barely afford sustenance for a single family, might be made to support three or four—and that too, with much less "toil and trouble," in proportion to the quantity cultivated.—Many of our farmers grasp at the management of too spacious a territory—the consequence is, they impose upon themselves a state of slavery: they accumulate nothing, except now and then an additional patch of waste land, which serves only to increase their burthens without augmenting their income. Were they on the contrary to confine their exertions to smaller spots, while their crops could be rendered equally if not more abundant, they would themselves enjoy life better—become more independent, and with their usual share of sagacity and frugality, more wealthy: they would acquire time to institute experiments, and to examine improvements; they would attain what they now scarcely ever possess—*leisure*—whereby we mean not the privilege of being lazy—but that sort of leisure which poor Richard describes as "time for doing something useful"—time for study, for reflection, for familiar converse, for looking after the education of their young—in short, for realizing the blessings after which they are constantly toiling. We are no practical farmer—but, according to the proverb, "a wink from a blind horse" is sometimes serviceable.

HORTICULTURE.

CULTURE OF SILK.

Stateburg, August 26th, 1830.

GIDEON B. SMITH, ESQ.

Dear Sir,—I have purposely delayed writing in order that I might state to you, the progress made in the art of reeling, as well as the successful attempt this year in rearing the silk worm, at the Marden establishment, owing as we are happy to acknowledge, to information mainly derived from your kindness and experience, otherwise I should have availed myself of an earlier opportunity of replying to some *insinuations* and returning my *thanks* to Felix Pascalis, M. D. &c. &c. &c. &c. &c., for the *very kind* manner he has been pleased to notice in his "practical instructions," a communication of mine in the American Farmer, July 3d 1829, where he finds "a doleful account of the great mortality which happened this year in an immense nursery of silkworms in the above place." The ladies, who so much to their praise, have attempted this enterprise, (the only one of the kind in this state,) it is true were unacquainted at the time with the art or method of rearing silkworms; they attempted to inform themselves by authorities, which I *now* imagine were a *little* better than any that could be derived from the "Practical Instructions" of Felix Pascalis, M. D. They consulted, among other writers, Count Dandolo, to *whom* I beg leave to refer the "honorary member, &c." to the 13th chapter, page 307, of the French edition of his work, commencing, "Voici comment est construit le mien," &c. to show him that *he may* be *mistaken,* (I doubt not *his* superior knowledge of the French language,) in saying to this effect that Dandolo requires a house four times as large for the same quantity, "which is the result of 25 oz. of their seed," and also in the Manual published by order of congress under the direction of Mr. Rush, he may find an English translation to the contrary of his assertion.—And now, sir, I wish to be done with that gentleman, *if* these ladies were so unfortunate as to make a *mistake* on good authority, in an undertaking not only novel to *them,* but to *all* their friends in this state, it was their misfortune and not their fault, and should have saved them the comparison, "to a certain noble culturist in France;" and again, it would certainly be rather alarming to the silk culturist, if it were necessary to have a house as large as F. P., M. D. &c. &c. &c. &c., would have us believe, viz. "12,937 square feet of space on hurdles, and a nursery of the *same width* as above, should at least be 300 feet long." In conclusion on *this* subject, I fancy sir, it will be unnecessary for *me* to vouch to *you* for the correctness of any statement I may make, *or* for the great respectability and *undoubted* veracity of these ladies, whom I have the happiness to call my friends. I hope, sir, you will not consider the above observations an intrusion upon your time, as I have conceived them *due* to myself, and my *friends,* as well as the *correction* of errors *probably unintentional,* but which *had* they existed on my part, I should have wished (more for the sake of *others* than myself,) they had been pointed out less *doubtfully.* And now, sir, to the main purport of this letter, and fulfilment of my promise to you. At Marden this spring the worms were very healthy; at one time there was *some* appearance of disease in one part of the house, but immediately all the shelves were washed with a strong solution of chloride of lime, (as recommended by you,) which put a stop to it in twelve hours; this was afterwards often repeated, even when the worms seemed well—*these* ladies have not attempted to raise as many worms *this* year as the *last,* because *last* year a part of their experiment was to feed the largest portion on the wild or black mulberry; but as it was we think satisfactorily ascertained, that this latter prolonged the life of the worm, thereby exposing them longer to the risk of a rainy season, and brought them to the *heat* of summer, and as both causes probably contributed to the "doleful account," they determined to relinquish *that* part of their plan, until the white mulberry trees are large enough to feed as many as the house can hold, that is, about 20 oz. of the seed, "Practical Directions," to the contrary notwithstanding. The cocoons gathered this year have been very good, the exact number not yet ascertained—although this has been a favorable season in every respect, yet there is little doubt, that, another year, more will be raised with the same or perhaps less trouble: for, after all, there are evils to be avoided, and benefits to be drawn from circumstances that can never be learned but from one's own experience. The reeling part of the business has not been long commenced, and it is really surprising, (after all the difficulties which have been suggested,) to see with how much *ease* it is done, and how much improvement the practice, even for this short time has been—one part of reeled silk is generally drawn from four or five parts of cocoons, which are dried and taken indiscriminately, so that the Carolina servants do not *even* waste the silk, which was the evil most apprehended—*but* they *do not* reel a pound a day, and it is hoped it is not so understood, when in an article of yours on the subject, you say they "reel with ease"—*it* was only meant *they* did it well and without difficulty, after a few days instruction, and had no allusion at that time to the quantity. It seems, however, that the Italian women *work* twelve hours in the day, and the house servants of Carolina only six or seven, and then *leisurely,* (notwithstanding northern slanders to the contrary,) the same hands who *reel* have to provide *water* and *fire,* and are often interrupted to change the one, and rekindle the other, so that no comparison can fairly be drawn between the former and latter, though these *latter,* with all these disadvantages, reel six ounces a day with *ease* now, and are daily improving. Enclosed is a specimen of silk, (which the Misses Waties request your acceptance of,) drawn from the cocoons of a small Chinese worm, the eggs of which were imported last year by a gentleman of Philadelphia, who kindly sent them on a portion. The balance of their silk this year I think will deserve from its *quality* the price they procured for that sent to Baltimore last year, viz. $13 per lb.

Below I furnish you some experiments *made* to ascertain the quantity of cocoons, necessary to give a pound of silk, which I hope may be acceptable to you. Permit me, sir, to subscribe myself respectfully, your obedient servant, &c. ORLANDO S. REES.

A quarter of a pound of the Chinese cocoons, (fed on the white mulberry) after they were dried, yielded 301 grains of silk reeled.

615 grains of cocoons raised on the wild mulberry, yielded 144 grains of reeled silk; some of these cocoons were good, and some bad.

430 grains of cocoons raised on the white mulberry, taken indiscriminately, yielded 105 grains of reeled silk.

Half a pound of small lemon coloured cocoons, (raised on the white mulberry,) of the worms of three casts, gave 1¾ oz. of silk.

39 ounces of the same cocoons yielded 8½ oz., and 33 grains of reeled silk.

(From "Prince's Treatise on the Vine.")

REMARKS ON THE CULTURE OF THE VINE.

The consideration of culture naturally divides itself into three parts.

First, The great or vineyard culture, comprising that of fields and plantations on an extended scale, for the manufacture of wines, brandies, and raisins.

Second, The small or garden culture, on a more limited scale, for the supply of the markets with fresh fruits, or for family supplies alone.

Third, Hothouse culture, where artificial heat is resorted to, either to obviate the effects of climate, or to advance the maturity.

In viewing the subject, I shall commence by considering it in its more extended and most important character, which will necessarily comprise many remarks of general applicability, and equally referrible to the more limited species of cultivation.

GREAT OR VINEYARD CULTURE.

It is a subject of much difficulty to prescribe the proper course of culture required by the vine in every country. So many circumstances are connected with its growth, the excellence of its fruits, and the abundance of its crops, that a different treatise would almost seem necessary for every country, climate, and exposition.

To what country is our attention most particularly drawn for lessons on this interesting subject? To France! to "La belle France!" which has emphatically stripped from ancient Greece her prerogative, and become "the favoured land of the vine and the olive." Spreading as she does over the same degrees of latitute as are embraced by our own country, with the advantage on our part of a still wider domain, it is to her we may look with reason for instruction suited to our proper circumstances, and we may be willing with pride to learn from a nation celebrated for her liberality in the diffusion of all knowledge connected with the sciences and the arts.

The manner of cultivating the vine presents in general great differences; but in every district, whatever may be the exposition and situation of the soil, the cultivators follow established practices. All the methods adopted, notwithstanding their variations, may be nevertheless essentially good, but it is impossible at the same time that they should suit every country; I will not therefore undertake here to describe the whole. From the high state of perfection to which the vineyards are carried in Provence, Duhamel has adopted the course of management there practised as one proper to impart general instruction, and from the last edition of bis work published in 1825, I shall extract what is deemed most important to my purpose.

"The culture having a powerful influence upon the epoch of maturity, and upon the quality and size of the fruit, it is to the choice of a judicious system in its operations, that we should bestow our particular attention. The principal object of a vigneron, is that the grapes may acquire the saccharine matter, which is the true principle required in the fermentation, and this is only to be obtained by using all possible means to complete the maturity of the grape.

The heat which accumulates in the earth during the summer, begins to exhale from it as soon as the nights become cool, which is very frequently before the grape is completely mature. It is therefore adviseable to keep the vines trained low, so that the grapes may be much nearer the earth in a cold climate, and may receive the benefit of that heat. This influence of heat from the earth varies much in several respects. It is greater in black soils because they absorb more of the solar rays, and also in vineyards where the plants are distant from each other, because the rays can then penetrate to a greater degree; and upon declivities and sloping lands, because they receive more of the sun's heat, and on dry soils, because the heat is not carried away by the influence of water. This heat continues longer on the hills and against walls and places sheltered from winds, than on the summit of mountains and in plains. The great quantity of leaves, stalks, and poles, form a covert, which prevents the rapid evaporation of that terrestrial warmth, and it is from this effect that they account for a result contrary to one of the precedents already stated, which has been observed in certain vineyards around Paris where the vines touch, but nevertheless often attain to an earlier maturity, than neighbouring vineyards where the vines are more remote.

An entire misconception appears to exist among some cultivators of the vine in the colder latitudes of our country. Acquainted as they are with the difficulty of maturing many varieties of grapes in their respective locations, they apply manure profusely for the purpose of insuring success, which by causing the plant to advance greatly in the growth of its wood and foliage, and to continue this state of verdure to a much later period, has absolutely an effect directly the reverse of what was desired and anticipated, by retarding the growth and maturity of the grapes, and often serves to prevent their ripening at all, when otherwise they would not have failed to have been perfectly matured.

So many facts conduce to prove the influence of culture upon the quality of the fruit, and consequently on that of the wine, that no one can be ignorant of it; the bunches which ripen in Sicily, and in the isles of the Archipelago, on the tops of the tallest trees, in Italy on trees cropped down to ten or twelve feet in height, in the plains of Languedoc to stocks but two or three feet in height, could not ripen in the north unless trained within a few inches of the ground or against walls. This indicates what is really the fact, that it is indispensable that a different course of culture be pursued, applicable in each case to the respective climate where the vine is planted. Vineyards planted upon very steep hills require a different mode of treatment from those which are on plains, and those in moist soils from others in dry situations. Different varieties of vines also need some variation in their management, and inattention to these points is the reason why many have failed of success, who have endeavoured to improve the quality of their wines by the introduction of plants from the most celebrated vineyards, without adopting the methods of culture pursued by those who were successful in their management. The details which will be given hereafter, when speaking of the different French vineyards will fully establish these facts.

The Romans reared their vines by fastening them to certain trees, as the poplar and the elm, &c., whence these trees were said to be wedded to the vines, which gave rise to Ovid's elegant and entertaining story of Vertumnus and Pomona. The vines, as has been already stated, mounted to the very highest branches of the loftiest trees, and even o'ertopped them; and Pliny states that on this account the grape gatherers, in time of vintage, put a clause into their covenants when they were hired, that in case their feet should slip and their necks be broken, their employers should give orders for their funeral fire and tomb at their own expense. This mode of culture is still continued in that country, as well as in many parts of Sicily, where Swinburne tells us, in the walks under the rocky cliffs of Posilipo, the peasant is seen swinging from the top of a tree on a rope of twisted willows, engaged in trimming the poplar and the luxuriant tendrils of the vine, while the whole vale rings with his rustic ditty, which so naturally brings to mind the verse in Virgil—

"Hinc alta sub rupe canet frondatur ad auras."

The lopper shall sing to the winds under the lofty rock.

GRAPES—INQUIRY.

Linnæan Botanical Garden, August 31, 1830.

Mr. Editor:

Dear Sir,—I notice the remarks in your last paper, signed S, in relation to the point whether the *Scuppernong* grape vine is *diœcious* or not. Being anxious alone to elicit *facts,* and not wishing to substantiate by argument any favorite opinion of my own at their expense—may I ask you to solicit in my behalf, from your correspondent S, all the information he can impart to me on the point referred to, which it will confer great pleasure on me to be allowed to give place to in my work on the Vine, and such course by allowing all considerations to be fully weighed cannot fail to finally elicit the truth. I honour and respect every intelligent man's opinion, and in the work referred to, have been equally particular in giving those at variance, as those in accordance.

Very respectfully, Wm. Prince.

RURAL ECONOMY.

TAMING OR BREAKING HORSES.

Starks, Somerset Co. Maine,
August 25, 1830.

Mr. Editor:

I have read with considerable interest, the communications published in your valuable paper respecting taming or breaking horses. I have also read elsewhere, some account of *whisperers,* or men who had the art of rendering the most ungovernable colts perfectly manageable and docile, by apparently *whispering* a word of *advice* in their ears. Dr. Good, in his Book of Nature, under the head of Sympathy and Fascination, after giving instances of the power which the natives of Lapland and Dalarne have to fascinate, or keep dogs quiet, although of the most furious kind, goes on to state, "grooms are sometimes found to be possessed of a similar power over horses." Mr. Townsend, a clergyman of excellent character, and considerable learning, has a striking anecdote to this effect in his account of James Sullivan, a native of the country which forms the subject of his pen. The man, an awkward, ignorant rustic, of the lowest class, was by profession a horse-breaker, and generally nicknamed the *whisperer,* from its being vulgarly supposed that he obtained his influence over unruly horses by whispering to them.

The actual secret of his fascinating power he kept entirely to himself, and it has died with him. His son, who is in the same occupation, knows nothing of it. But it was well known to every one that however unbroken or vicious a horse, or even a mule might be when brought to him, in the space of half an hour, he became altogether passive under his influence, and was not only entirely gentle and tractable, but in a very considerable degree continued so, though somewhat more submissive to himself than to others. There was a little mystery in his plan, but unquestionably no deceit. When sent for to tame an unruly horse he ordered the stable door to be shut upon himself and the animal alone, and not to be opened till a given signal. This singular intercourse generally lasted for about half an hour; no bustle was heard or violence seemingly had recourse to: but when the door was opened, on the proper signal being given, the horse was always seen lying down, and the fascinator by his side playing with him familiarly as a child with a puppy. "I once," says Mr. Townsend, "saw his skill tried on a horse that could never before be brought to stand for a smith to shoe him. The day after Sullivan's half hour lecture, I went, not without some incredulity, to the smith's shop, with many other curious spectators, when we were eye witnesses of the complete success of his art; this, too, had been a troop horse, and it was supposed, not without reason, that after regimental discipline had failed, no other would be found availing. I observed that the animal seemed afraid whenever Sullivan either spoke or looked at him." "In common cases," Mr. Townsend adds, "even the mysterious preparation of a private interview was not necessary, the animal becoming tame at once." "We have here, therefore," observes Dr. Good, "another instance of most extraordinary and instantaneous ascendancy of one animal being over another, without any manifest medium of action, which we are occasionally but not often called upon to witness. That it could not have been force is clear, and though natural firmness and intrepidity may do much, they by no means appear to have been sufficient in the present case, and could, indeed, accomplish but little in the dark. Nor does there seem to be any mode of accounting for such a control so reasonable as that of a natural or artificial emanation from the fascinator, which we have already adverted to; and if the last, obtained, perhaps, as in many of these instances, by illiuing or impregnating the person of the operator with the virtues of various plants unknown, or little known to the rest of the world."

I know not, Mr. Editor, how far the Doctor's theory of "emanation" is correct in the case of taming horses; but I should like to know if there is a man now living, who possesses the power which is here attributed to Sullivan, one who can bring the wildest and most ungovernable steed to crouch and fawn upon him like a puppy. I have no doubt that fear, as your correspondent, Mr. Harden, avers, may do much in taming horses. Can your Elizabethtown correspondent do as Sullivan did, and if so, what are the objections to his making his art public? I should be happy to hear more upon this subject through the medium of your pages.

Yours, &c. E. Holmes.

Query. I am desirous of putting a few mares another season to a stallion, of fine form and spirit, but which is, unfortunately, wind broken. Will there be any danger of his colts inheriting that malady? or will they be more predisposed to that trouble than others from a sound horse? If any one can state facts upon this subject he will much oblige me if he will communicate them. E. H.

MILK PANS.

A writer in Poulson's Daily Advertiser, has the following remarks on the properties of milk pans.

"The pans used in this country are made either of tinned iron, glazed earthen or stone ware. Tin is perhaps less objectionable than any other species of metal, at least of all such as can be applied to this use; but no metallic vessel whatever should be allowed to enter the walls of a well regulated dairy. A tin pan becomes a galvanic apparatus the moment an acidulated fluid is poured into it; besides which, if the seams are closed with solder, a poison is soon generated by the acid of the milk, and if closed by lapping, the cut edge exposes the iron to the same influence. Tinned vessels soon communicate a disagreeable taste, and even smell to water—distilled water! how unfit then for preserving such a fluid as milk.

The earthenware pans are generally glazed with lead, which renders tin vessels, (improper and dirty as they are and must be) very preferable indeed.—Here then we have a direct mineral poison (which, in the very smallest quantities produces sickness) lining the whole of that surface which is in immediate contact with the milk. I would as soon drink vinegar that had been boiled in a copper saucepan as to use butter or cream that has remained twelve hours in a glazed earthen vessel.

"To the *stone ware*, I can see no possible objection; on the contrary, I am thoroughly convinced from theory, that it alone, is the proper material for milk pans. Consider it as you will, its superior fitness for this purpose is evident. The most highly concentrated acids have no effect upon it; the chemists daily avail themselves of this capital substitute for glass, of which the faces are composed, an absolute vitrification taking place during their baking by means of salt. Stone ware milk pans then are the proper ones, and I shall hereafter conclusively demonstrate that stone ware or glass is the only proper material for such vessels as are intended to preserve butter and a variety of objects wholesome in themselves, but rendered deleterious by being prepared or being allowed to remain in improper vessels."

BEES.

A correspondent of the New England Farmer, says, "a few days since, having occasion for some honey, I called on a neighbor who went to a hive and took out what I wanted. I asked him the reason why he had a hive of honey without bees at this time of the year.—He told me he expected they had lost their king bee, as he knew no other reason. The bees appearing to be in good condition and well stored with honey.

"The manner in which he drove the bees out of the old hive into a new one, to rid them of the bee moth, may be worth mentioning.—In the first place he started the top of the hive, so that the water could run in; he then took a half hogshead; deep enough to sink the hive in, after which he took the hive that had the bees in, and put the top downwards in the hogshead, with the new hive on the top of that; he then turned it in water gradually, till it was up to the top of the old hive; he then took the new hive and sat it in the bee house, and then the bees went to work in one hour; and always have had sufficient for the winter. The month of June is the time to move them; he told me that he knew of no evil that attended the process; as Mrs. Griffith says 'it must be done with care and moderation.'"

MISCELLANEOUS.

(From Silliman's Journal of Science, &c. for July 1830.)

Mode for Adjusting Lightning Rods.

Columbus, (Ohio,) May 24th, 1830.

TO THE EDITOR, FROM MR. P. B. WILCOSS.

Sir,—The Scioto valley in which this town is situated, is liable to heavy thunder storms. A contrariety of opinion and of practice prevails in attempting to secure houses by rods from the effects of lightning; and I have been requested by several gentlemen, to address you upon the subject, to ascertain the proper manner in which to put up rods, so as most effectually to protect buildings. Some of the difficulties are as follows:

1. *The depth to which the rod should be inserted in the ground.*—It has been remarked in this state and in Kentucky, both lime stone countries, that very frequently rods furnish no protection to houses. In the summer season the earth becomes perfectly dry for several feet below the surface, and it is supposed by some that there is not sufficient moisture at the termination of the rod in the ground.

2. Another difficulty is, *the proper height of the rod above the highest point of the building.*

3. Another very serious difficulty seems to be *the manner in which the rod should be attached to the building.* The common practice here is to place the rod by the side of the house and at proper distance, let the rod run through small pieces of iron, one end of which is driven into the house, the other having an eye sufficiently large to admit the rod. Through this eye, and before the rod is inserted, the neck of a glass bottle, the end of a horn, or some non-conductor is placed, so that the building stands isolated. Serious doubts are entertained whether the practice is correct or not. Indeed there is nobody here who knows *how* to put up a lightning rod, and rest satisfied that he is correct. Will you be good enough to give us the necessary information? With your permission I would make public your views upon the subject, as I have no doubt it may save many lives and much property.

Answers given by Professor Olmsted, of Y. College, at the Editor's request.

1. The rod should be *closely joined together* throughout, either by securing one part within another, or by welding several parts together; this will prevent the interruption occasioned to the passage of electricity through links or loose joints.

2. The points of the rod above should be *gilt*, since the conducting power of iron is impaired by oxidation.

3. The rod should descend into the ground far enough to be always in contact with *moist earth.* This depth will vary in different places. In some places five feet will be sufficient; in others, six or seven will be required; and in soils peculiarly dry it may be prudent in the season of thunder storms, to connect the bottom of the rod (by means of a chain or the rod continued,) with a well or vein of water. The chain or rod may be inclosed in some substance, or be painted with a thick coat of lampblack to keep it from rusting. When the bottom of the rod terminates in the ground it may branch off in several directions.

4. The height of the rod above the building should be regulated on this principle; that *a lightning rod will protect a space in every direction from it, of twice its length above the building.* Thus, if it rises fifteen feet above the roof, it will protect a space of thirty feet every way.

5. The rod should be fastened to the house by wooden in preference to iron stays. For, although electricity takes the shortest route, yet in case the rod were imperfect, the passage of the fluid into the building would be favoured by iron bolts.

6. The kitchen chimney, being that alone in which a fire is usually kept during the summer, requires to be especially protected.

7. Paint made of lampblack is best suited to lightning rods, this substance being a better conductor than other kinds of paint.

With regard to the failure in lightning rods mentioned in the foregoing letter, it is probably owing chiefly to the *dryness of the soil;* and therefore, in that region particular care will be required in fixing the bottom of the rod, so as to make it convey off the electricity in the best manner, and this is most effectually secured by a thorough metallic communication with moist earth, or better with permanent water.

In addition to the above remarks, drawn up at my request by Professor Olmsted, it may be suggested, that, as the gold leaf on lightning rods is in a few years removed by the weather, it would be better to terminate the rods with solid silver, or better still with the platina points prepared by Mr. Lukens of Philadelphia.—*Ed.*

Privileges and Prerogatives of the King of England.

At the present moment, the following brief abstract of the prerogatives and powers of the monarch of these realms may not be uninteresting to our readers.

The King of England takes an oath at his coronation to preserve the rights and privileges of the church, the prerogative of the crown, and the laws and customs of the realm. He has the power, by his prerogative alone, of making war or peace, concluding treaties, &c. He convokes and dissolves parliament; and may refuse his assent to any bill passed by both houses, without giving his reason for it. But this apparently important prerogative has not been exercised in this country for a long period, other means being usually resorted to, to prevent such an ungracious and generally unpopular step in a monarch. He may increase the number of members of either house at pleasure, by granting new Peers, and bestowing privileges on other towns for sending Burgesses to Parliament. Debts due to him are always satisfied in the first place, in case of insolvency. He has custody of the persons and estates of idiots and lunatics. All bullion, money, &c. found, if the owners be not known, belong to him. So all wrecks and lands, recovered from the sea, gold and silver mines, &c. are said to be his. He cannot make new laws, or raise taxes without the consent of Parliament. But though in Great Britain, which is a limited Monarchy, the power of the king is greatly restrained, this is so far from diminishing his real honour, that it adds much to the respectability of the office.—Of the king's revenues, some have belonged, time out of mind, to the crown, and some have been granted by Parliament, by the way of purchase or exchange for such of the king's hereditary revenues as were found inconvenient to the subject. Another branch of the king's ordinary revenue consists in the profit and rents of the demesne lands of the crown; these demesne lands were originally very large and extensive, comprising divers manors, honours, and lordships; at present they are greatly contracted. The profits arising from his forests are another branch of revenue; and that which arises from the king's ordinary Courts of Justice makes another. There are also many others. However, the king's principal revenue consists in the supplies granted by the Commons in Parliament

[*London paper.*

POPULATION.

The census now taking, furnishes interesting facts in relation to the growth of various sections of the country. The relative value of many places will be depreciated, and of others increased. Many of the Southern and Eastern states, for example, will have less comparative force in Congress, while that of the states North and West, will be greater than before.—The state of New-York, it is estimated, will number *two millions*, which, at the ratio of one to 50,000, will give us forty representatives. New York city, although the results thus far give reason to expect some disappointment, will probably give 200,000. The returns, so far as received, from Pennsylvania and Virginia, show an increase of about 40 per cent.

The increase of population in Albany, within the last five years, has been very great, and it probably has no parallel in the Union. In 1825, it numbered 15,994, and in 1830, 24,216—being an increase of 8,242, or more than one half of its whole population in 1825.

New-Haven, (Conn.) numbers 18,653, making an increase of 2,526 in ten years.

Baltimore contains 80,519. Increase in ten years, 17,781.

Philadelphia, it is said contains about 200,000 inhabitants. Of these 90,000 are within the city limits, and 110,000 in the suburbs. The whole increase since 1820 will be about 65,000.

The population of Cincinnatti, is estimated at 28,000.

The North Carolina Times deplores that "emigration to the West has done more to retard the growth and prosperity of the Southern Atlantic States, than all other causes combined." We agree to this, if *slavery* is left out of the question. Here lies the secret. Slavery is depopulating the southern states.

[*New York paper.*

In the bottle, discontent seeks for comfort, cowardice for courage, and bashfulness for confidence.

THE FARMER.

BALTIMORE, FRIDAY, SEPT. 10, 1830.

Culture of Silk.—In another part of this number, an interesting communication will be found, giving the result of this year's operations at the Misses Waties' establishment, in South Carolina. The successful application of the chloride of lime, both as a remedy and preventive of the destructive disease among silk worms, first suggested and tried by the Editor of this paper, is peculiarly gratifying; because this improvement in the silk culture, of the utmost importance, is purely *American,* notwithstanding a French society claimed it for one of its members several months after the fact of its successful trial had been published in the American Farmer, which was regularly received in Paris. The specimen of silk accompanying the communication, is really excellent; and, as an evidence of the progress these ladies are making in reeling silk, highly creditable to them. The reader will not fail to notice the fact stated by Mr. Rees, that the *servants* of the Miss Waties, reel six ounces of this excellent silk in as many hours—which, considering the fact, that they have to attend their own fires and water, is fully equal to the performance of the Piedmontese reelers, who reel a pound in twelve hours.

Sore Tongue in Horses.—A much respected correspondent at Cambridge in this state, informs us that the disease which prevailed among horses in the adjoining county, (Worcester,) in 18[illegible]6, an account of which will be found in No. 36, vol. 8, pape 2[illegible]3, has made its appearance among the horses of Dorchester county. He says it has never before been seen or known to him, and describes it as bearing such a malignant character as to merit a thorough investigation. On a visit to his farm the overseer informed him, that one of his best horses had died that morning of this disease, which had within a few days attacked four others in the neighborhood. The horse the previous evening, he said, discovered a sore mouth by dropping his food which he attempted to eat; a slight swelling appeared under his throat, scarcely discernible—in a few hours it was very large, and the next morning early he died; his tongue being excessively swelled, black and ulcerated, and protruded out of his mouth. He had been until that moment, in perfect health and fine order. We shall be much obliged to any of our correspondents for an account of the pathology and treatment of this disease. We find no mention of it in any of the books.

Bakewell Rams.—Mr. Barney, of Delaware, has left with the Editor, two Bakewell Rams, *shearlings,* (one year old last spring,) for sale, price $21 50 each.

The Drought.—Our advices from all parts of the southern states, continue to represent the drought as being most distressing. In some counties of North Carolina, an alarming scarcity is threatened—(not in the region affected with the gold mania, it is hoped!)

The late gale has been very destructive to the crops of South Carolina. The Georgetown Intelligencer thus describes its ravages in the Parish of Prince George.—"The ravages of the late gale in this neighborhood have been unequalled in the memory of man. So many plantations on which the crops may be lost, not to reckon those on which the damage has been from one-fifth down, cannot be enumerated at any former period. It is difficult yet to speak of the entire extent of the loss, but it is presumed that upwards of twenty plantations on the waters of Winyaw Bay, will make little more than the seed. *None* are supposed to have escaped, though from local circumstances, and the peculiar state of the rice, some have suffered much less than others. From conversation with intelligent planters, we should conceive that few, if any, of the most fortunate will lose less than one-fifth."

New Cotton.—Several bales of new cotton were brought to Macon on the 20th inst. and sold for nine and ten cents. The Messenger says it is earlier than new cotton was ever brought to that market. A load has been received at Augusta from the plantation of Paul Fitzsimons, Jefferson county. The Chronicle mentions that Col. Fitzsimons always receives a cent per pound more for his cotton, on account of the excellent manner in which it is packed—its neatness, closeness, and uniformity of size and weight.

Fruit.—The Troy Daily Sentinel mentions four plums, 2 magnum-bonums and 2 egg plums, from the garden of Mr. David Lyon, of Albia; they measured 5 15-16 inches each, in circumference, the shortest way, and nearly 6½ inches the longest way.

LATEST FOREIGN NEWS.

Revolution in France.—Since our last publication, we have received intelligence from England to the 4th August, and from France to the 31st July. The news from France is of the highest importance, not only to Europe, but to the world at large. To the United States it is important in whatever view we take of it. It shows the progress of the great principle, so dear to every American, and to which we can almost lay claim as originators, that goverments are instituted for the benefit of the people exclusively, and can be modified or abolished, and new ones substituted, as often as the old ones shall be found to be inefficient or oppressive. The details of this momentous affair in the concerns of the world, will have reached most, if not all our readers, through other channels, before the present number of the Farmer can be received; and therefore we shall merely give an abstract account of the occurrence in as concise a manner as possible.

Those who have bestowed even ordinary attention upon French affairs for a few years past, will have become acquainted with the fact, that the people of that country have been divided into two great parties—a royal and a constitutional or liberal; that the liberal party has been rapidly gaining strength, and the royal proportionally declining, from the time of the ascendency of the Polignac administration; which was in all its features ultra royal. When this administration found itself opposed by the late chambers, on grounds such as those on which they predicated their opposition, the wisest course, and the only proper one, would have been concession. But that was not found in the creed of these royalists; the prorogation and dissolution of the chambers were resolved on, and a proclamation issued, so tyrannical and corrupt in its tendency, and bearing upon the ensuing election, that nothing but the prostration of the ministry issuing it could be looked for. These measures were well calculated to arouse what little of the liberal spirit might yet be slumbering, and at the next election which took place in the fore part of July last, a large majority of liberal deputies were elected to the chambers. As soon as the result of this election was known to the ministry, and without waiting for the assembling of the chambers as usual, an ordinance was issued dissolving the new chambers, and making material alterations in the election law, by which the people were deprived of rights secured to them by the charter, and by which the ministry expected to secure a majority in the chambers. At the same time an ordinance was issued suppressing the liberty of the press, and reviving the censorship in its most odious form. From such proceedings nothing less than revolution in its most wild form, could have been looked for; and the only subject of astonishment is the fact, that the events which followed were not anticipated by the mad administration of Polignac. These decrees were issued on the 25th and published on the 26th July, on which latter day Marshal Marmont (Duke of Ragusa,) was invested with the command of the troops. On the day following, the Bank refused to discount bills, upon which all the manufacturers discharged their workmen, and the streets of Paris were filled with groups discussing aloud the extraordinary state of things. Tuesday 27th, was early a day of great excitement and agitation. The Police were busy in attempting to prevent the people from visiting the usual places of resort for papers and news.—The Journal of Commerce appeared by permission and a royal ordinance was issued, requiring the printer to proceed with its composition the following day. A similar order was issued for the publication of *La France Nouvelle,* but it was disobeyed.

All the liberal Journals were suppressed on the 27th, and several battalions of the guards were under arms at an early hour in the Champs Elyses, and the people observing them began to form in groups in the Palais Royal and elsewhere. The excitement was excessive, and scenes of violence occurred, and some blood was shed. One of the *gens d'armes* was killed in the Palais Royal in a burst of popular fury occasioned by an attempt to prevent the reading of one of the popular Journals. The *gen d'armes* paraded the streets with orders to fire in case of any excesses. Late in the evening the offices of the three papers who published in defiance of the decree were burst open by force and the presses seized.

On Tuesday afternoon, it was well understood throughout Paris that a general meeting of the Oppositionists would take place in the *Bourse,* and that Lafayette, at the head of the late National Guard, (whom the government had suppressed,) would protect their deliberations. The meeting took place; it represented all the property and influence of the city. We do not know the precise nature of the resolutions they entered into; but the *effect* of their meeting was, the assembling, on that evening, of the two Chambers, who unanimously voted a remonstrance to the king, and sent a deputation to present it to his majesty at St. Cloud. On the arrival of the deputation at the palace, they discovered that the king had fled. They returned to Paris, and reported the circumstance to the Chambers, who thereupon declared *that Charles the Tenth had forfeited the throne.*

On the evening of the same day (Tuesday) matters began to wear a very serious aspect. The gen d'armes posted on the Place du Palais Royal were incessantly attacked by a mob of dandies, with a perseverance and desperation of which all the riots, revolts, tumults, or revolutions of England or other countries afford no example. They were supported by young bourgeois, and by the lower classes, but the majority, by five o'clock, were Paris fops, with rattans in their hands and pistols in their pockets. Some of them were killed.

Opposite the Rue Froidmanteau the people were charged by the cavalry—fired their pistols in their faces, retired, and returned to the attack, with cries of Vengeance!—Liberté!—A bas le Roi!—Vive la Charte!—Vive l'Empereur!—Vive Napoleon II!—La Mort a Polignac!—La Mort a Peyronnet!—Liberté ou la Mort!

The gen d'armes, now attacked on all sides, fought with great desperation, and the superiority of their arms, and the station in which they were posted, enabled them at every volley to sweep off hundreds of the citizens; still the determination of their assailants could not be overcome, and, reinforced by crowds of workmen, boys, clerks, students, coachmen, and, in short, all classes of the people, the whole scene soon presented an undistinguished mass of horrible conflict and carnage. A band of citizens took the body of one of their slain companions to the Place de la Bourse, stripped and exhibited it, surrounded by candles, amid unceasing cries of "*Vengeance!*" and "Aux armes, aux armes!" A little later and the lanterns were smashed, their long cords left dangling in the centre of the street, bringing to mind the dreadful use made of them 41 years before. At ten o'clock the wooden guard-house of the Place de la Bourse was attacked, the gen d'armes expelled, and the guard-house itself set on fire. A party of Sapeurs Pompiers (firemen) arrived to extinguish the flames, but they would not be allowed to act, and suffered themselves to be disarmed.

Later all the armourer's shops in Paris were attacked, and every weapon carried off.

The pavements of the streets were taken up, and carried to the tops of the houses, and hurled down upon the heads of the soldiers. An English gentleman, on looking out of a window of a house in the Rue St. Honoré, was shot dead by the military. A party of the National Guard got possession of the Tuilleries after a desperate conflict between them and the king's Swiss Guard, in which 50 of the latter were killed. Upwards of a thousand lives, it is supposed, were sacrificed in this desperate struggle between the king's forces and the inhabitants. A regiment of Lancers suffered dreadfully. The result was, that the *troops were driven out of the city*, and on Tuesday night Paris was under the protection of the National Guard, commanded by Lafayette.

On Wednesday morning, 28th, the struggle was renewed, and for ten hours this sanguinary combat raged with undiminished fury—on every side were heard the rolling of musketry, the thunder of cannon, the shouts and groans of the victor and the vanquished, and the doleful sound of the tocsin. The "line" (the regiments of the line) fired no shot during the day. The 53d refused to act. The cannoniers of the Guard gave their pieces an angle of elevation which spared assailants who spared not them, for the intention was not ascertained. The cavalry were cut up in a hundred charges.

The tri-colored flag soon floated on the tower of the Hotel de Ville, and on those of the Cathedral, (Notre Dame.)

On Thursday the attack on the Louvre and Tuilleries was renewed early and with success, but with great slaughter. The Palace was pillaged. The different barracks of the unhappy Swiss Guards were carried in the course of the day, and the Swiss (having refused to surrender) were cut to pieces. At four o'clock in the evening there was not a man in arms against the people in Paris. The tri-colored flag waved once more over all the public monuments, and tranquility prevailed in all the streets—what a contrast! The day before Paris was filled with 150,000 men engaged in mortal combat—its streets ran rivers of blood and reverberated with the thunder of artillery—the roll of musketry—the perpetual tapping of the *pas de charge*—the tolling of the tocsin—the cheers of the combatants—the shrieks and groans of the wounded and dying.

The Duke of Orleans was appointed to the head of the provisional government, under the title of Lieut. General of the Kingdom, a regular ministry was formed, of well tried men, some of whom had served in the same capacity under Louis 18th, and all of whom were well known to the French people; and at the latest date to which we have intelligence, all was quiet in the city.

The same spirit of revolution seemed to pervade the country, and our next accounts are expected to furnish details of the most interesting nature relative to the progress of the struggle in the interior. At Havre the naval arsenal is said to have been carried by the citizens, and at various other places similar scenes are reported to have occurred.

Liverpool Corn Exchange, Aug. 3.

The imports of the week, with the exception of one or two Russian cargoes, are very limited. The stocks of free Wheat are estimated not to exceed 15,000 and those of Oats 8000 quarters; of Flour and Oatmeal they are even proportionally smaller. Inconsiderable as the present stocks are, prices have been receding; Wheat was, on Saturday, offering 6d to 8d, and Oats 2d to 3d, per bushel below our previous prices. Prices of Barley were rather cheaper; and both Flour and Oatmeal might have been purchased on lower terms. The same dulness prevailed in the surrounding country markets. In bonded Wheat the business has been extensive, principally in the ordinary descriptions, which have been sold for delivery at the end of this month and beginning of September; free at 7s 6d to 8s, and in bond at 6s 6d, per 70 lbs. Some parcels from the lower ports of the Baltic have been sold, under similar conditions, at 9s to 9s 6d, and choice at 10s per 70 lbs. duty paid. A few parcels of Flour have also been taken on speculation, at 30s to 31s per barrel: but in Oats or Barley, under lock, scarcely any transactions have occurred.

Though the weather, the last day or two, has been rather unsettled, and has caused a firmer feeling as respects bonded Grain, holders of all descriptions of free have been anxious to press sales, and at this morning's market, which was more numerously attended by country buyers than for some weeks, the above noted reduction was readily submitted to, and, in some instances, even rather lower rates were accepted; a moderate amount of business was transacted in Wheat, but the sales in Oats were very limited. Flour must be noted 1s a 2s per sack, and Oatmeal 2s to 3s per load cheaper.

The sales of Cotton on the 31st July and 2d of August, amounted to 5000 bags, without any variation in prices.

Prices Current in Charleston, August 30.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 23. Upland, inferior and common .9 a .10, fair to good, .10 a 10½, prime to choice, .10¾ a .11 5-8. *Rice*, prime, $2¾ a .3.00, inferior to good, do. $2.1-8 a .2.3-8. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $6 a 6¼. *Corn*, .60 a .63. *Oats* 37 a .——; Peas, 65. *Hay*, prime Northern, 80 a 85. *Whiskey*, Philadelphia and Baltimore, hhds. .28 a .—; bbls. 30 a —; New Orleans, old .32 a .33. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .—; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork*, Mess. .14 a 14½; Prime, .— a .11, scarce. *Bacon*, .7 a .— cents; Hams, .8½ a 9; Lard, 18¾ a —. *Butter*, Goshen, .18 a .— inferior, .8 a .10.

SAXON SHEEP.

On Thursday the 23d day of September, at Hartford, (to close a concern) will be sold by Public Auction, an entire flock of superior full blooded Saxon Sheep, bred with care from the best stock, imported by Messrs. George and Thomas Searle, in 1825 and '26; consisting of 14 Rams, 30 Ewes, 11 Ram Lambs, and 10 Ewe Lambs.

Also, the well known full blooded Durham improved Short Horned Bull *Wye Comet*, unquestionably the best Bull in America.

W. WOODBRIDGE,
HENRY WATSON.

AGENCIES.

The Subscriber is agent for the following persons, and all orders directed to him, or left at his Agricultural Warehouse and Seed Store, No. 36, West Pratt street, Baltimore, will be promptly attended to.

Viz. for Messrs. Walker and Hammond's Iron Foundry, where all kinds of *Castings* can be had, equal to any made in this country, and on reasonable terms.

Also, for Messrs. Peirson and Walker, manufacturers of all kinds of *Spindles* for factory use, these will be warranted equal or superior to any ever before made in or imported to this country.

Likewise, agent for the Messrs. Robbins's improved *Corn Planter* for planting or sowing all kinds of seeds; can furnish the machines or dispose of the patent right. All communications by mail must be post paid.

Also, general agent for Messrs. D. & C. Landreth's Seed and Horticultural Establishment at Philadelphia.

Also, a general assortment of Agricultural Implements on hand as usual, &c. J. S. EASTMAN.

ALMANAC.

1830. SEPTEMBER.	SUN. Rises.		Sets.		Length of days.		Moon. rises.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 11	5	45	6	15	12	30	0	02
Sunday,...... 12	5	47	6	13	12	26	1	00
Monday,..... 13	5	48	6	12	12	24	1	55
Tuesday,.... 14	5	49	6	11	12	22	3	00
Wednesday, 15	5	51	6	9	12	18	4	00
Thursday,... 16	5	52	6	8	12	16	4	50
Friday,....... 17	5	53	6	7	12	14	5	50

New Moon—15th, 9h. 17m.—Afternoon.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—There has been a considerable decline in the prices of flour and grain, owing to intelligence by the late arrivals, of good weather at the commencement of the harvest in England. The English papers state that the accounts of the crops in all parts of England, Ireland, and Scotland, are of a most gratifying nature. There were two large lots of first quality red wheat sold on Wednesday, the one at 95 and the other at 97 cents—the latter under circumstances which do not authorise its being taken as a guide to current rates. There is much uncertainty in the flour market. The wagon price of Howard street yesterday was $5.31¼. The market has seldom been as well stocked with fine beef as during this week, and we have again been able to spare to our neighbours of Philadelphia, a fine large drove. The prices have declined still further, and sales are somewhat dull. We take occasion here to remark that our quotations are made from the best possible authority—chiefly predicated upon actual sales; the prices of seeds have been revised and corrected according to rates current yesterday.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 456 hhds Maryland, 40 hhds. Ohio; and 4 hhds. Pennsylvania, total 500 hhds.

FLOUR—best white wheat family, $6.00 *a* 6.50—super. Howard-street 5.37½ *a* 5.50—city mills, 5.00 *a* 5.25--Susquehanna, ——; CORN MEAL, bbl. 2.25——GRAIN; red wheat, .90 a .96;——white do. 1.00 a 1.05—common red ——CORN, white, .56 *a* .—yellow .56 *a* .——RYE, .— *a* .50———OATS, .30 *a* .——BEANS, 90 *a* 1.00-PEAS, 50 *a*. 60-CLOVER SEED, 4½ *a* 5 00 TIMOTHY, 1.75 *a* 1.87½—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, .75 *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, -FLAXSEED, 1.12½-COTTON, Va. 9½ *a* 10½--Lou. 11½ *a* 12½—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 10 *a* 12-WHISKEY, hhds. 1st p. .30 *a* —; in bbls 31 *a* 32—WOOL, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $210 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, 5.50, *a* 5.62½ No. 2, 4.75 *a* 5.00—No. 3, 3.75 *a* ——BACON, hams, Balt. cured, 10c.-Feathers, 34 *a* 35—Plaster Paris, cargo price per ton, 4.37½ *a* —ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 3.50 *a* 4.25—Pine Wood, by the vessel load, 2.00. Oak, 2.75 *a* 3.—Hickory, $4.50.

EDITED BY GIDEON B. SMITH.

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AGRICULTURE.

FOREIGN FRUITS, &c.

The unknown author of the following article will please accept our thanks for his timely suggestions. We should be glad to hear from him often. We shall next week follow his excellent example, and make an extract from the unrivalled work of Michaux, on the Olive, which will throw some further light on this interesting subject. We join our correspondent in calling the attention of our commercial men and officers of the navy to the matters here suggested; and to make this call the more effective, we invite editors in our seaports to further the object by republishing this article.

September 1, 1830.

To the Editor of the American Farmer:

Dear Sir,—As a treaty between the United States and the Sublime Porte was signed at Constantinople in May last, and which treaty secures to the commerce and navigation of the United States, all the advantages enjoyed by the most favoured nations, in the ports or dominions of the Turkish empire, and a free passage of the Hellespont to the Propontis, and the Black sea: I have thought that the owners and masters of vessels from our beloved country, trading with the Turkish empire, might render unspeakable benefits to our agricultural interests, by introducing the productions of that country into our own. For, from the Mediterranean we originally received our laws, arts and sciences; and from the shores of that sea, we received our best fruits. And from thence it will be easy for navigators to bring us the several varieties of the olive, which no doubt would flourish in East Florida, Alabama, and Louisiana; and would be a general blessing to those states.

The olives of Palestine appear to be superior to those of other countries. Dr. E. D. Clarke, says, "we found a grove of aged olive trees, of immense size, covered with fruit, almost in a mature state: from this circumstance we were unable to view or to collect blossoms from any of those trees, and are ignorant of their specific nature. That the olive of Jerusalem is of the same species with the European olive, we do not absolutely affirm; the leaves being considerably broader, and more silvery underneath than any, either of the wild or cultivated varieties which we have seen."

Candia, Lesbos, and Tenedos, are in the same latitude of Maryland, Virginia, Kentucky, and Missouri; whose happy temperature of climate, conspired with the richness of their soil, to produce those delicious fruits and exquisite wines so highly extolled by Virgil and Horace. And even now, the island of Tenedos produces the finest wine in the Archipelago.

We are told that the grapes cultivated at Madeira were obtained from the island of Cyprus. And the Greeks, speaking of the wine of Cyprus, say, it will restore "youth to age, and animation to those who are at the point of death." Dr. E. D. Clarke, says, "the inhabitants preserve their wine in casks, to which the air has constantly access, and will keep in this manner for any number of years. We tasted some of the *Commanderia*, which they said was forty years old, and was still in the cask. After this period it is considered quite as a balm, and reserved, on account of its supposed restorative, and healing quality, for the sick and the dying. Both the *Commanderia* and the *Muscad* are white wines. When new, they have a slight tinge of a violet hue; but age soon removes this, and afterwards they retain the colour of Madeira. Cyprus produces also a red wine, which might be rendered by industry as famous as the white, and perhaps better calculated for exportation. It has the flavour of Tenedos, and resembling that wine in colour and strength; and good Tenedos not only excels every other wine of Greece, but perhaps has no where its rival in Europe."

Dandini, though an Italian, seems to have been surprised at the extraordinary size of the grapes of Mount Libanus. "They use no props," he tells us, "to support the trees, but let them creep along the earth; the wine produced from them is delicate, and exceedingly pleasant: it is very surprising to see the bigness of the grape, which is equal to that of a prune."

D'Herbelot tells us, in his Bibliotheque Orientale, from a Persian historian, Khondemir, that "Jezia being in Palestine, which he calls Beled Arden, or the country of Jordan, and diverting himself in a garden with his queen, of whom he was passionately fond, they set before him the most delicious fruits of that country: during this repast, he threw a single grape to the lady, which she took, and putting it to her mouth to eat it, she let it slip down her throat, and being very large, such as the country produced, it stopped her breath, and stifled her in an instant."

Doubdan, in his Voy. de la Terre Saint, p. 154, tells us, that near "Bethlehem he found a most delightful valley, full not only of aromatic herbs and rose bushes, but planted with vines, which he supposed were of the choicest kind, and that it was indeed the valley of Eshcol, from which the spies carried that prodigious branch of grapes to Moses." Num. xiii. 23, 24. "It is true," says this writer, "I have seen no such bunches of grapes, not being here in the time of the vintage; but I was assured that they still find them here that weigh ten or twelve pounds. As to the wine, I have tasted it many times, and have always found it the most agreeable of that made in the Holy Land. It is a white wine, which however has something of a reddish cast, is somewhat of the Muscadel kind, and very delicious to drink, without producing any bad effects."

Rauwolff, page 207, speaking of his visit to Mount Libanus, says, "they treated us with wine, and we drank a good deal, for it was so pleasant that I must confess that I never in all my life drank any like it. The like whereof is not to be found, neither in Candia nor Cyprus."

Le Bruyn, Tom. 2, ch. 57, says, "Canobin," a celebrated monastery on Mount Lebanon, "would be preferable to all other places: was it only on account of their having there better and more delicate wines than are to be found any where else in the world. They are so oily as to adhere to the glass. And I found it so excellent, that I did not think I ever tasted any kind of drink more delicious."

Monsieur de la Roque says in his Voy. de Syrie et du Mont Liban, tom. 1, p. 54, 55, "We were treated on Mount Lebanon, with olives, eggs, and wine." And he adds, "it would be difficult to find elsewhere more excellent wines. These wines are of two sorts, the most common is the red, and the most exquisite is the colour of our Muscadine wine; they call it golden wine, on account of its colour."

Hasselquist tells us, page 117, that he "eat olives at Joppa, which were said to grow on the Mount of Olives, near Jerusalem; and that independent of their oiliness, they were the best he had tasted in the Levant." In his journey he found several vales abounding with the olive trees. The superior excellence of the olives of Judea should not be forgotten.

Figs, apricots, pears, peaches, pomegranates, lemons, oranges, citrons, and pistachio-nut trees, all excel on the shores of the Mediterranean. And as we, the descendants of our European parents, originally obtained our fruits mostly from the north of Europe; and comparatively, but few from the south of Europe, it is presumable, that there are still varieties of fine fruit yet to be obtained by our commerce and intercourse with the Turkish empire.

Sir J. Chardin says, "that the pistachios of Syria are the best in the world." And Syria "is the land of oil."

Hasselquist, the Swedish naturalist, was fond of the fruit of the Sycamore. He says "the fruit is soft, watery, somewhat sweet, with something of an aromatic taste." He adds, "after I once had tasted it, I could scarce refrain from eating; and if I had thought the fresh fruit wholesome, I should certainly have eaten a great deal of it. They bud in March, and the fruit ripens in the beginning of June:—that the tree is wounded at the time it buds, as without this precaution, the inhabitants say, it will not bear fruit." Page 120.

Niebuhr tells us, in the second tome of his Travels, p. 280, "that one of his associates found the palm tree in flower the 4th of April, and had the pleasure of writing a description of the tree under its shade: and that it grows in great abundance in Yemen, the southern part of Arabia, and that the people there make no other use of it but for burning, on account of its sweet scent." Though some writers suppose, the palm tree is used in Arabia to make the Mecca balsam, which is sent in pots to Constantinople, and is very costly.

The olive blossoms in May, in Greece, as well as the vine; but in Great Britain, in the great Chelsea garden, oranges, limes, lemons, citrons, red, white, and double oleanders, and olives, all flower in July: in other countries in June.

Dr. Richard Chandler says, p. 211, "we left Athens the 21st of June, and landed in the Saronic gulf, and went to the monastery; the situation of which is high and romantic, near a deep torrent bed. It was surrounded by green vineyards; thickets of myrtle, orange and lemon trees in blossom; the arbutus with fruit large, but unripe; the oleander or pierodaphne, and the olive laden with flowers." But before that, on the 6th day of May, he says, "near Marathon, we eat under an olive tree laden with pale yellow flowers."

As it is as easy to cultivate good fruit, as ordinary, and as the native forests of North America disappear they should be replaced with trees of utility and pleasure; which would greatly add to the health and wealth of the nation. The above quotations are therefore at your service: for there is a want of nice fruits generally throughout our country. Every farmer should have a nursery, a vineyard, and an orchard, of his own raising. The fruit of our own raising has a peculiar flavour. Yours, &c.

A Lover of Agriculture.

(From the New York Evening Post.)

SLAKED LIME MANURE.

The season has now arrived when farmers are preparing to sow their winter grain. The writer of this article has experienced the efficacy of slaked lime, as a manure on ground that was entirely worn out, producing nothing but five-finger leaves and weeds. The ground was tilled, and 40 bushels to the acre was spread over it. It was seeded with grain, and timothy and clover were sown at the same time. It yielded me a fine crop. I mowed the same five years without adding any manure. The second manuring was still more efficacious, when 60 to 80 bushels was used. Forty bushels is as much as ought to be used the first time. I know of a farm in New Jersey, in a lime stone county, completely worn out. The most that could be obtained for it was fifteen dollars per acre. I presume the purchaser would not now sell it for fifty dollars per acre. It is entirely renewed by lime, and it is a pleasure to look over it.

The advantage of using lime is, you insure to yourself a certain crop, unless the season is very unfavorable. Ground which has not yielded wheat for many years now produces fine crops. In one instance, forty-five bushels per acre has been produced this season.—Your grain of every kind will be at least double—in many instances treble. Your pastures will be very abundant—you may double and treble your stock of cattle. If you have more pasture than you want, plough under your clover—it will mellow and very much enrich your ground. The farmer will then reap abundantly, and the old cry of poor crops will be silenced.

A Farmer.

(From the American Quarterly Review.)

CUBA.

We shall take a rapid glance at the chief productions of the Island, which are sugar, coffee, tobacco, wax, cocoa, rice, and corn; upon each of these, some valuable facts are furnished by the statistical account of the island; but we have to regret that the subject is not treated more at large. Upon no branch of industry is there more room for the exposition of new facts and impartial statements, than upon that at present under consideration.

Sugar is undoubtedly the most valuable commodity raised in Cuba: the cane was not indigenous to it. The first species that was introduced was that from Canary, which did not prove very productive.—From the year 1760, to 1767, the average annual exportation of sugar did not exceed 13,000 boxes from the port of Havana, and as this was the only point from which it was exported, we may assume that to have been nearly the whole amount of sugar made on the island. Great encouragement having been given by government, the exportation increased rapidly, and in the period from 1786 to 1790, it averaged 68,150 boxes annually. Each box of sugar averages 400 pounds, so that the exportation, which in 1767 was only 5,200,000 pounds, increased, in twenty years time, to 27,260,000 pounds. From that period the progress was much more rapid; many causes concurred in producing it; besides those to which we have alluded when treating of the increase in the population, we may mention the opening of the trade of the island, the formation, in 1792, of the Patriotic Society; the establishment of the "Consulado" in 1795; but more than all these causes, the substitution of the Otaheitan cane, in the place of the Canarian: the former acquires a much larger size, yields a great deal more sap, and thrives well in Cuba. The annexed statement of the quantity of sugar exported from the single port of Havana, shows a rapid, and if we except the last year, a constant increase in the quantity. The annual exportation averaged:

From	to		lbs.	lbs.
1760	1767	13,000 boxes, at	400 =	5,200,000
1800	1810	177,998 do.	do.	71,199,200
1820	1825	250,384 do.	do.	100,153,600
In 1826 it was		271,013¾ do.	do.	108,405,500
1827		264,954½ do.	do.	105,981,800

But the port of Havana having ceased to be the only one for the exportation of sugar, as it was in former times, we must advert to the trade of the other places, to obtain a correct account of the whole amount of sugar exported from Cuba. The following exhibits the *custom house reports* for 1827:

Export of sugar through the port of

Havana, - - -	99,354,137 lbs.
Santiago, - -	6,032,763 do.
Nuevitas, - - -	375,275 do.
Matanzas, - -	30,364,844 do.
Trinidad, - - -	10,361,337 do.
Holguin, - -	351,450 do.
Jagua, - - -	12,500 do.
Manzanilla - -	120,800 do.
Total of custom house reports	146,973,106 do.

But as the custom-house reports are founded upon the assumption, that a box of sugar weighs but 15 *arrobas*, (375 lbs.) while its true weight is, after deducting the tare, at least 16 *arrobas*, (400 lbs.) they add to their amount one sixteenth, (it should be one-fifteenth,) viz: 9,185,818 do.

Making a total of 156,158,924 do.

This is, however, only the custom-house report. Much sugar is said to be smuggled out of the country—how much we have no data to calculate; we have seen it estimated at one-fourth more.

Our authors state the whole produce of the year 1827, to be 202,295,925 lbs., which would leave nearly 50,000,000 lbs, for the domestic consumption; for they assume that there is no warehousing of sugar in the islands, and that the exportation always carries off what remains of the crop, after deduction of the quantity required for domestic use; but we incline to the opinion, that the consumption is very much overrated.*

The manufacture of sugar is the true source of the wealth of Cuba; it requires extensive machinery, large gangs of slaves, and a considerable outlay of capital, to establish a plantation. Great improvements are stated to have been made in the various processes of the manufacture, in the form and construction of the boilers and furnaces, and in the application of steam and water power to the moving of the machinery. Of these improvements the beneficial effects are apparent. In 1775, there were 453 sugar mills, whose produce was only 32,500,000 lbs. In 1827, with 1000 mills, upwards of 200,000,000 lbs. were made. So that each mill averages at present, nearly three times more produce than formerly, (not six times, as is erroneously stated by our authors.) The improvement of the boilers has been such, that in many cases, no other fuel is required in the manufacture, than the dried stalk of the sugar cane, after the juice has been expressed. Formerly, the consumption of fuel for this purpose, was a very heavy item of expenditure; it was such as to produce a scarcity of wood in some districts, which occasioned the abandonment of sugar estates. In all cases, it requires that the owner of a plantation should purchase a large quantity of wood land. At present, we understand, that in some instances the dry cane-stalks suffice, not only for the boiling down of the juice, but also for the supply of the steam engines.—Dr. Abbott mentions, however, that on other plantations, "it is not sufficient to boil the sugar, while the cane is ground by oxen," and justly adds, "there must be some principles of economy in the one case, worth inquiring after in the other, especially as wood is more scarce in this part of the island."

We observe, as a very remarkable fact, stated in the statistical account, that the first cane planted in a virgin soil, will continue to yield for from 20 to 24 years, without requiring any manure, after which time the soil requires, every third year, fresh ploughing, and a renewal of the cane. In many other countries, such as Louisiana, Mexico, &c. the cane is planted anew every year.

All the sugar estates established since 1805, are free of tithes; and without including the old ones which are re-establishing, there are upwards of two hundred new plantations commenced of late; and of these ninety-three are in the vicinity of Matanzas.

In addition to the sugar produced, this branch of manufactures gives a large quantity of molasses and of rum. The former used to be extensively exported to the United States, and is still so to a certain degree; but the trade has suffered much by the increase of the duty levied upon it in our ports. In the year 1827, there were exported from the island upwards of 74,000 hogsheads (110 gallons each, of molasses, of which the port of Havana exported upwards of 38,000, that of Matanzas more than 23,000. The total production of molasses in 1827, was 81,000 hogsheads.

The quantity of rum manufactured in the country, is also considerable, exceeding 35,000 pipes, almost all of which is consumed there. The inordinate use of it among the slaves, is, as might be expected, an evil of great and growing magnitude.

From comparing the number of slaves, (70.000) which we have previously mentioned as engaged on sugar plantations, with the whole quantity of sugar made in the island, 200,000,000 lbs. we find the annual average produce of sugar for each slave employed, to be between 2500 lbs. and 3000 lbs. an estimate in which we place the more confidence, from the fact, that it concurs with one furnished to us by a friend who took considerable interest in the subject of the agriculture and population of Cuba, and who, as far back as the year 1824, estimated the produce of an estate, with 150 slaves, at 1000 boxes of sugar.

Before we close this part of our subject, we may be permitted to state a curious fact, for a knowledge of which we are indebted to a respectable gentleman conversant with the West India trade, as it exhibits one of the many apparent anomalies observed in commerce. Conversing on the price of sugar, we were surprised to find that it was sold at a lower price in Cuba, when in boxes, than when put up in bags; which he accounted for by stating that a practice had obtained, of charging the purchaser three dollars and twenty-five cents for the cost of the box, at a time when carpenter's work was very expensive in the island. This practice has continued unchanged; and as the box now costs the planter much less than the price he charges for it, the profit he makes upon it allows of his selling the sugar in boxes a little lower than that in bags.

Next to sugar, coffee is undoubtedly the most valuable production of Cuba. The history of this plant is attended with a circumstance of great interest to the friends of science. It is to the valuable collections of the Museum of Natural History, (Jardin du Roi,) in Paris, that the West India islands are indebted for the first importation of a plant, that has proved the source of so much wealth to them. In 1727 (1720?) it was first transplanted to Martinique; in the subsequent year the culture of it was commenced in Jamaica.—It was, however, not introduced into Cuba, until the year 1769; but there was not, properly speaking, a coffee plantation in the island until 1790. The St. Domingo planters preferred the cultivation of coffee to that of sugar, and were the first that gave it a decided impulse. The vicinity of the eastern part of Cuba to their own island induced them, at first, to settle there; but they were soon attracted to the neighborhood of Havana, by its denser population, and greater wealth.

The rapid extension of this plant in Cuba, may be gathered from the following statement. In 1800, there were but 80 plantations; in 1817, there were 779; in 1827, the number was 2067, of at least 40,000 trees each; in 1804, the exportation from Havana, was 1,250,000 lbs.; in 1809, it rose to 8,000,000 lbs.; from 1815 to 1820, it averaged annually, 18,186,200 lbs.; in 1826, it amounted to 30,540,237; and in 1827, to 35,837,175 lbs.; through the port of Havana alone; to which we must add the very extensive exportations now made at other places, which we think proper to state in detail, as they afford the best means of judging of the increase of the agriculture of the colony at large, and of the rapidity with which new districts are settling. The exportation in 1827, was as follows:

Amount exported,	50,039,581 lbs.
Internal consumption,	22,048,619
Total production,	72,088,200

It must be borne in mind, however, that these are custom-house reports, to which, as in the case of sugar, great additions are to be made for the amount not regularly exported; besides the well known difference in weight, as the custom-house reports alway assume a bag to be equal to 150 pounds, while it sometimes considerably exceeds that weight. The revolution of St. Domingo, having at one time completely checked the agriculture of that island, the coffee planters of Cuba had almost a monopoly of the trade; but the great extension of their plantations, as well as the large quantity of coffee thrown into the market from other places, has so lowered the price of this article, that a coffee estate is wholly unproductive at this day. All the planters in Cuba, who can afford it, are changing their estates into sugar fields; but as this requires a large capital, many will continue to raise coffee, and it is hoped, that the greater trade with the United States, which is expected to attend the contemplated reduction in the duties, will give some relief to the depressed planter. While we are writing, a bill is in progress in Congress, and will, it is believed, be carried, to reduce the duty on coffee, from five to two cents per pound, for all importations after the 31st of December next, and to one cent after the 31st December, 1831. The coffee planter, although not liable to tithes, finds his estate a very precarious one, as the productiveness depends altogether upon the weather. With the utmost care, it is known to vary so much that, in some seasons, the trees do not yield one third of an average crop.

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* We have it from undoubted authority, that the largest sugar crop ever obtained in Louisiana, was that of 1828, when it amounted to 88,000 hogsheads, or 88,000,000 lbs. From the unfavourable weather experienced, the crop of last year fell considerably short of this quantity. The whole consumption of the United States, at this time, is estimated at about 140,000,000 lbs. of sugar annually.

Allowing 50,000 slaves to be attached to coffee plantations, and the amount of the crop to exceed 72,000,000 pounds, it follows, that the work of each slave can, on an average, produce 1450 pounds. The calculations of the experienced friend, to whom we have referred, assumed that a slave could attend 2000 trees; of which he estimated the average produce to be half a pound per tree. We know this calculation to have been made with great care, and with a view not to overrate the produce of a coffee estate; we believe the usual estimate for a tree is three-fourths of a pound, which would allow 1500 pounds for the produce of a slave, or very nearly the quantity above admitted. Supposing each tree to average three-fourths of a pound, there must have been in 1827, nearly 100,000,000 coffee trees, in a state of productiveness on the island; the largest estate is said to have 1,000,000 trees. Three estates lying in the neighborhood of the mountains of San Salvador, containing respectively, 250,000, 230,000, and 450,000 trees, upon an aggregate of 1400 acres of land, yielded in the year 1827 a crop of 875,000 lbs. of coffee, which is nearly a pound for each tree; besides corn, plaintain, tobacco, &c. The low price of coffee may have a beneficial effect upon the industry of the island, by inducing planters to improve their methods of cultivation, and preparation of the berry for market; already, we understand, advantage has been derived, in the picking or assorting the coffee, of "a machine recently invented by Mr. P. Chartrand, and made in Carolina, and not yet extensively introduced." We hear of a planter, who, by means of this divider, "doubles the quantity of hand-picked coffee in a day, his negroes picking six bags without the divider and twelve with it." It is also said, that on the same estate, "the proprietor expects, by using the tops of the cane as a manure for the coffee trees, to obtain as much coffee from 150,000 trees, as was formerly obtained without manure from 300,000 trees." Necessity has justly been termed the parent of invention; let the planter see that his present processes do not admit of the profitable culture of coffee, and he will endeavor to invent new and cheaper ones.

Of the other productions of the island, tobacco ranks highest, both from the extent of its cultivation and exportation, and from the reputation which it has acquired abroad. The history of this weed is very curious, but is too well known to require that we should dwell upon it; our authors state it to be indigenous to the island of Cuba; its culture is tedious and laborious; it requires a virgin soil of no common fertility, and a very great degree of heat; the rankness of its vegetation impoverishes the land upon which it is raised, so as to reduce both men and animals to the most miserable subsistence. It does not require many labourers, much machinery, expensive establishments, or outlay of capital, and is generally attended to by the poorer class of planters, who employ on it but few slaves;—of late, however, from the removal of the restrictions upon it, and the low price of coffee, rich planters have turned their attention to it. The plant is a very delicate one, exposed to the injuries of many insects of different species, requiring incessant care, by day and night, on the part of the planter, to cleanse it of all vermin. Owing to the belief originally entertained, that its uses were merely medicinal, a law, issued in 1586, prohibited the sending of more than 2000 pounds annually to Panama for the supply of the apothecaries; subsequently, it having been found harmless, and the use of it for smoking becoming extensive, orders were given to ship the balance of the crop to Seville. It was soon made an article of revenue to government; and in 1765, was placed under the control of the excise officers, as has been usual in every part of Spanish America. Under this arrangement, the king obtained the monopoly of it, limiting the quantity to be raised, and sold to him exclusively, at the price which he chose to affix to it. This was manufactured in his warehouses, and retailed out to consumers at an immense advance. These tyrannical and impolitic regulations were repealed by a decree of June 23d, 1817, and the royal factories finally abolished in 1821. Tobacco is therefore, at present, an article of cultivation and manufacture, open to all the inhabitants, on the payment of the duty of six per cent. The quality of the tobacco raised upon the whole island is by no means uniform. The best, and the only kind that can be used for smoking, is that raised in the westernmost part of it, though a few points in the other provinces yield a tolerably fair article. There is great uncertainty as to the quantity of tobacco which was obtained in the early periods of its culture. It is believed that at the first establishment of the royal factory, the crop amounted only to 2,000,000 lbs.; but that it has gone on gradually increasing, until, in the year 1827, it rose to 12,500,000 lbs., of which two-fifths were from the western part of the island. It is stated that only 2,000,000 were exported, leaving upwards of 10,000,000 for the internal consumption: upon this point, it appears to us evident, that there must be a mistake; for it is scarcely to be believed that the average consumption of the whole population, white or colored, slave or free, old or young, male or female, should be twelve pounds to each individual. It is probable that the smuggling on this article is immense.

(From the New York Farmer.)

USE OF SALT.

It is singular that such a body of evidence should be brought together on the advantages of the application of a moderate quantity of salt to every description of growing crop, from grass to timber trees, and to almost every domestic animal, from the horse to the honey-bee, and yet that salt should be so little in use. We have not a doubt ourselves that it may be of real use to live stock; because we have seen it very generally given on the continent. Mr. Johnson says, "I have given my own gig-horse an ounce of salt every night in his corn, for the last five years; and though he has, during that period, worked very hard, he has continued in the best health, never having had a dose of physic in his life." To be able to dispense with physic, either in the economy of men or cattle, is a grand object; and we certainly think the occasional, or perhaps the constant, use of salt in the food of domestic animals, and especially in that of the horse, as being in a more highly artificial state than the others, a desirable object.

(From the New England Farmer.)

THE GREAT CORN-FIELD.

Mr. Printer,—Having heard a great deal said concerning the great corn-field on Turkey Bog, I resolved to visit it in person. I there found twenty acres of good corn growing, and promising an abundant harvest to its enterprising cultivators. This bog is extensive, and we may expect to see in a few years, instead of twenty, hundreds of acres growing on this bog, which, until recently, has yielded nothing but alders. But few meadows can compare with this in richness of soil or extent of territory. I hope this experiment will serve to turn the attention of our farmers to their bogs and meadows, as I believe they may be made the most productive parts of a farm where they exist. If our farmers would make a practical use of the hint contained in the toast of Hon. Roger Vose, delivered at a celebration of the Cheshire Agricultural Society, a few years since, viz: *"May there be more draining of swamps, and less draining of the bottle,"* we should hear very little of hard times and a scarcity of money to pay taxes, or to pay for the newspaper. W.

BOG MEADOW.

Hon. James Fowler, of Westfield, Massachusetts, in the spring of 1828, covered over 108 rods of bog meadow land with loam from adjoining upland. The loam was spread about five inches deep. The land was then sowed with herd-grass seed and the first year produced little but weeds. This year, however, it produced at the rate of five tons 780 lbs. of best hay per acre, and before the putting on of the loam the yield was not more than a ton per acre, and that of an inferior quality. The expense of covering the land was about $20 per acre. [*Greenfield Gazette.*

HARVESTING.

A general rule, as it regards wheat and rye, is, that the earlier each is harvested, and before the grain has become hard, the whiter will be the flour, and the thinner the skin of the grain; but the whole weight of the product will be a little less, than if the grain be harvested later. Probably all that is gained by late harvesting is an addition to the skin of the grain.

When a severe blight or rust has struck wheat or rye, it should be cut immediately, even if the grain be in a milky state; and it should lie on the ground, but not so close as to injure the heads, until such time as the stocks have become dry and the grain somewhat hardened.—Then it ought to be bound up and put in shocks, and carted in as soon as it is sufficiently dry.—The later wheat and rye are cut, however, the easier it will thresh; but at the same time, there is greater waste by the shelling of the grain, in harvesting and carting in.

[*Western Intelligencer.*

A GOOD COW.

The Northampton Courier states that a cow, in that town, owned by Dr. Barrett, has given milk, and made butter after the following schedule; she has been milked for the last fortnight, every eight hours, and at each milking has yielded a pailful measuring ten quarts, the weight of the milk, averaging daily 49½ pounds. Her milk has yielded, daily, 2 lbs. 5 oz. of butter, making 32 lbs. 6 oz. in 14 days; from one milking alone, one pound and six ounces were made, which will give four pounds and two ounces of butter in one day from one cow! The butter was of a superior quality, and sold for a shilling per pound, while the usual price in the village has been but ten cents.

TAR FOR SHEEP.

A gentleman who keeps a large flock of sheep assures us, that during the season of grazing he gives his sheep tar; at the rate of a gill a day for every twenty sheep. He puts the tar in troughs, sprinkles a little fine salt over it, and the sheep consume it eagerly. This preserves them from worms in the head, promotes their general growth, and is supposed to be a specific against rot. [*N. E. Farmer.*

Do not brave the opinion of the world. You may as well say that you care not for the light of the sun, because you can find a candle.

HORTICULTURE.

VARIETIES OF THE STRAWBERRY.

Gideon B. Smith, Esq.

Linnæan Botanic Garden,
New York, Sept. 8, 1830.

Dear Sir,—With congratulations to yourself at the announcement in the last American Farmer, that you have accepted its Editorship, I am at the same time sensible that the public will not fail to appreciate your intelligence and talent for such station. I shall do myself the honour of occasionally contributing to your paper, and I now tender some remarks in relation to different varieties of the strawberry. Having above fifty of the most choice and celebrated varieties in our collection, I made it a point when they were in fruit, to personally examine them as to their qualities, of size, flavour, productiveness, &c. and from my notes made on that occasion I shall send you such extracts as I deem interesting. I shall also quote some descriptions from the Pomological Magazine, where they accord with my own observations. At the present moment I have only time to send you a small part, but the residue will be transmitted for future numbers of your paper. I have only further to add, that the collection of the varieties of strawberries being one to which I am particularly partial, and having received my personal attention, it is in the highest possible state for its *accuracy*.

Very respectfully,
Wm. Robert Prince.

Large Early Scarlet—*Prince's Catalogue, No.* 7.

The fruit of this variety is quite large, being of the size and form of the Hudson, from the seed of which it is supposed to have originated in a garden of this vicinity. The great advantage it claims over its parent, which is one of the largest, finest and most productive market strawberries, is that it ripens a week to ten days earlier than that variety, which is a circumstance of great import in regard to the value of the fruit at market. It is of high flavour, and of a paler and brighter red colour than the Hudson, and is a most prolific and regular bearer—in fact since its introduction to notice, it has become a general favorite, and no one thinks of having a good collection without this to commence the season.

Large Scarlet Lima—*Prince's Catalogue, No.* 26.

This variety is of very vigorous growth, with large leaves and strong stalks and stems; the fruit is very distinct in its character, and has commonly a long neck, its form is oblong, somewhat flattened on two sides, and terminating in an obtuse point. I have noticed that the berries are generally formed on the first blossoms towards the base of the peduncle. It is a tolerably good bearer, and repays any deficiencies by its large fruit of most excellent flavour. This variety is not known in the European publications, and was brought from Lima to Rhode Island where I accidentally met with it and brought it into public notice.

Duke of Kent's Scarlet—*Prince's Catalogue, No.* 29.

This is one of the greatest possible bearers, indeed none is or can be more productive,—and I think when known, it must be adopted as one of the principal varieties for the market, as well as for other purposes—it is rounded in its form, or of a somewhat compressed spherical figure, and of a fine bright red colour—its size is about two-thirds that of the Hudson strawberry, which is well known to be a large fruit.

Grove end Scarlet—*Prince's Catalogue, No.* 30.

This valuable variety, introduced to notice by the London Horticultural Society in 1822, was originated from seed in 1820, and has been subsequently figured and described in the Pomological Magazine. As a variety of the class of Scarlet strawberries it possesses peculiar merit; it is a most productive bearer; and the fruit is supported stiffly above the earth; it bears carriage securely and is remarkably handsome; it possesses a slight acidity, but is high flavoured and much esteemed. The size of the fruit is particularly large for one of the Scarlet class, of a flattened or compressed spherical figure, and a bright light vermilion colour; grains deeply sunken, with the intervals between them flattened; flesh pale red and firm—calyx large and reflexed; petals unusually large, with a marked tendency to exceed the usual number five, there being frequently eight or nine—the scapes are shorter than the foot stalks; peduncles long, elevating the fruit clear of the leaves—the footstalks are long and nearly smooth, leaflets small, oblong, and very deeply and sharply serrated, of a light clear green colour, and slightly hairy on the under side. This is a genuine variety of our native Scarlet strawberry, *Fragaria virginica*, and nearly approaches it in foliage, &c.

Prolific Hautbois—*Prince's Catalogue, No.* 25.

This may be deemed one of the most valuable acquisitions of its class, which our gardens have ever received, and the variety I am about to describe, and which is the only one *correctly* known by this title, differs widely from such as are so called in some collections of our country. This variety was first described in the London Horticultural Society's Transactions, and subsequently in the Pomological Magazine, which states it to be the best in England. The observation has frequently been made that the hautbois strawberries were generally barren or only occasionally or partially productive, and this remark is correct so far as relates to the old English hautbois, which has male blossoms on one plant and female on another, in which case the sterile plants being more vigorous than the fertile ones, they become the most numerous and gain the ascendancy, and then the whole are considered as barren and deteriorated. But the present variety having perfect stamens in all its flowers, is not liable to this inconvenience, and is exceedingly productive at all times, and frequently produces a second crop in autumn, the berries of which are of the largest size of any it yields, but less numerous. The fruit is of oblong or conical form, obtusely pointed, dark dull purple or blackish at full maturity and of large size; grains slightly embedded; flesh solid, greenish, very high flavoured, and musky; the leaves are light green, footstalks long and hairy, leaflets middle sized, oblong and hairy, with coarse serratures; scapes long, raising the flowers above the leaves, with branched peduncles, calyx small and reflexed; petals broad, at first imbricated, afterwards folded together; stamens strong remaining after the fruit ripens, anthers perfect. The high excellence, size and productiveness of this variety render it one of the most desirable.

Old Pine, or Carolina—*Prince's Supplement Cat.*

In so much estimation has this variety been held during a long period, that the catalogue of the London Horticultural Society enumerates no less than 21 synonymous titles by which it is known in the different collections of Europe.

This circumstance indicates how much it is cultivated and valued in Europe, where it is found in many gardens of old standing.

The London Pomological Magazine remarks, that its merit and value are universally admitted, and amidst the diversity of opinions as to which is the best strawberry known, there can be no doubt but that this will always receive the greatest number of suffrages to its superiority. In many situations it bears abundantly, in most well, and continues to produce on old beds for several years.

The fruit is large, form ovate-conical, sometimes cock's-combed, of a rich bright scarlet; grains slightly embedded; flesh pale scarlet, rich and juicy, with a very grateful flavour. The leaves are very deep green, footstalks long and upright; calyx large and spreading, and petals large.

Downton—*Prince's Catalogue, No.* 19.

An excellent variety raised by Mr. Knight, President of the London Horticultural Society in 1817. The berries possess a highly aromatic flavour, and some of those earliest formed are cock's-comb shaped, but those of the general crop are uniform, and regularly conical, with a neck—it is later at maturity than most others, and thereby serves to keep up the continuation of this delicious fruit; for at the period of its perfection many other kinds have ceased to produce. The fruit is rather large, but varies considerably, some berries being very large, and others but medium; when fully ripe of a dark purplish scarlet hue; grains but little embedded; flesh scarlet and firm. The leaves readily distinguish this variety, they being of a pale green colour, and very different from those of any other variety I have noticed; the footstalks are very long, leaflets of thin texture and moderate size, with large coarse serratures—calyx large, greatly incurved, sometimes spreading, or slightly reflexed; petals oval, tapering to the claws; the scapes very long, stiff and strong, and very erect, with short crowded peduncles, on which the flowers are generally numerous, but many proving abortive, the crop is not very abundant. The berries do not all ripen at once, but by degrees, some being greenish when others are at maturity.

An English writer, in his high recommendation of horticulture, makes a remark which seems to be well suited to the present season.

"In passing through the country, every man's garden may furnish a clue to his character, much better and safer in our esteem to trust to, than either physiognomy, phrenology, or autography. Do we see the kail bed, of large and ample dimensions, encroaching upon every inch of cultivated soil, we pronounce the possessor to be a political economist, or radical, or voluptuary; on the other hand, if we witness flowers of all hues adorning the vicinity of his habitation, we know there is a spark of his better nature yet unextinguished. It unfolds to us the current of his thoughts and feelings; it tells like the other also, of honesty and industry: but it tells besides, of generosity and charity, love and fidelity, of brave sons and beautiful daughters."

RURAL ECONOMY.

HORSES.

A writer who states that he has had the experience of *fifty years* in treating the diseases of this noble animal, gives the following directions to be observed in the care of horses:

"A great number of fine horses are destroyed in this country by those that have them placed under their care. It is a custom to wash horses with cold water, sometimes after hard driving, in the hottest time of the year, by which practice I have known many of them take the lockjaw and die; others have been foundered by only washing their legs and feet; it stops all perspiration and produces violent fevers. No gentleman in England will permit his horses to be washed—the horse is not a water animal, he wants the particular fostering hand of care, when placed in a domestic state.

Another bad practice prevails—the grain is thrown into the manger without sifting, and sand or gravel being heavier than the grain, it will settle down on the stomach of the horse. A few years past, I brought a stone from a horse which was believed to have been formed by thus feeding. I placed the stone in Peale's Museum; it is as large as a goose's egg and cased round like a cocoanut shell.

I would suggest a better plan for building stables, than that in use at present. All stables should be well ventilated, so as to admit a constant circulation of fresh air, without which horses are continually breathing on their lungs foul putrid matter. No stall should be less than five feet wide, as the horse, like man, wants to stretch himself when lying down to rest; many horses have died in the night, by being confined in narrow stalls, and being tied with a rope round their necks. All horses should have head stall halters, with a rein on each side, that should run up and down with blocks, in pulleys, on each side of the stall. The mangers should draw in and out like a drawer in a bureau, or desk; by being thus fixed as I have described, the horse will rise with ease, but on the old plan, the horse, in struggling to rise, often gets his head under the manger, and is found dead in the morning. The hay-racks should be placed in front of the stalls, and not on the side.

(From the New England Farmer.)

PROFITABLENESS OF BEES.

Mr. Fessenden,—Noticing the account in the last New England Farmer of the produce of Mr. D'Wolf's Bees in Bristol, (R. I.) I am induced to offer you the following statement of the produce of three hives, on the farm of Mr. Parker at Charlestown Neck,—the bees were under my care a part of the summer.

The three hives of bees in question produced six swarms, from two of which, *placed in Beard's Patent Hives,* was produced 40 lbs. of pure honey, besides leaving enough in those hives for wintering the bees—the 40 lbs. of honey were sold at wholesale at 25 cts. per lb. producing $10—and leaving the whole stock of nine swarms on hand; (seven of which, unfortunately are in the common old-fashioned hives which can give no return of honey this year, excepting the usual supply for breeders another season.) The above nine swarms will now sell readily at an average of $8 each, producing $72, which, with $10 for the honey, is equal to $82—the produce of the three original hives of bees, in one season.

Ebenezer Beard.

Charlestown, Sept. 7, 1830.

INTERNAL IMPROVEMENT.

ERIE CANAL.

The whole length of the Erie Canal, from Lake Erie to the Hudson river, is 363 miles.

It is forty feet wide on the surface, and four in depth.

Lake Erie is 565 feet above the level of the Hudson at Albany. There are from one extremity of the canal to the other, 84 locks, and the total rise and fall is 698 feet; of which about 650 are fall.

The entire cost of the Erie and Champlain Canals, according to the canal commissioners' estimate, is $7,519,995, or $17,367 19 per mile; making the total cost of the Erie Canal, including that for locks, feeders, bridges, and all appendages, $6,304,289 97. According to another estimate, that contained in the report of Mr. S. Wright, to the senate, Feb. 12, 1827, the cost of the Erie Canal, per mile, was $23,573. But in this estimate were included large sums paid for repairs, and for works not strictly appendages to the Canal.

The time required for passing the locks, is varied according to circumstances. We are not able to state the average detention. The general rate per hour of travelling, is about four miles; of transportation about three.

The amount of toll collected on the Erie Canal in one year, 1828, was $727,150 20. We have no document at hand to which we can refer for the rate of toll.

There are no means of ascertaining the number of passengers who passed along the canal since its completion. The number of boats that arrived and departed from Albany during the season of canal navigation, in 1829, was 12,329. The whole quantity of down freight on which toll is charged by the ton, was 75,500. The quantity of merchandise, &c. conveyed up the canal was 33,000 tons. There were other articles of freight both ways, for example, down 18,008 cords of wood; 32,156 feet of timber, 28,180,884 feet of lumber; and 17,130 feet of shingles.

The number of passage and transportation boats is continually varying. They all belong to individuals.

Two horses are generally used to draw the boats, and sometimes three. They are usually changed about every twelve miles.

The net income from the Erie and Champlain Canals from 1817 to Jan. 1829, was $6,487,742 10. The net profits for the year 1829, applied towards the payment of the canal debt, amounted to $471,528 22.

CANALS IN THE UNITED STATES.

Canals and Rail-roads are contributing largely to our national wealth. Not that they are filling our state treasuries with money; this is a small object; but, by their magic power, they are bringing distant places near to each other, placing a market at the door, of every citizen, and increasing the facilities of trade and commerce. Thus they raise the value of real estate but lower the price of foreign articles, and place the means of subsistence more easily within the reach of every individual. This rather than a full treasury, is what we call national wealth; and even though, it does not follow, that the state is impoverished by maintaining them.—Mr. Maynard, however, proved to a demonstration, in the senate last winter, that the canals of this state have at least answered the expectations of reasonable men, as a source of public revenue.

By an estimate made in Philadelphia, there are in the United States 1343 miles of canals, and other artificial navigation, now completed—1828 in progress, and 408 projected. Of rail roads, 44 miles complete, 422 in progress, and 697 projected.

States.	Finished.	In progress.	Projected.
The New-England,	72	117	0
New York,	564	0	18
New Jersey,	0	100	30
Pennsylvania,	480	250	368
Virginia,	120	0	0
North Carolina	43	0	0
South Carolina	0	150	0
Georgia,	0	60	0
Ohio, &c. &c.	70	491	0

LADIES' DEPARTMENT.

(From the Village Record.)

A PROCLAMATION.

To all to whom these presents shall come, greeting—know ye, whereas, it has been represented to us, that several and divers ladies, spinsters, females, maids, girls, unmarried women, &c. within our dominions of love, have not only a willingness to consent, but even an ardent desire to leave the state of celibacy, and take to themselves, or be taken to, husbands; and whereas it is supposed by many that the bachelors, young or unmarried men of these my realms, do not know who among the maidens, &c. &c. &c. would or would not, be so willing or so desire to marry, and seems proper and fitting that the ladies, spinsters, females, maids, girls, and unmarried women as aforesaid, should put on some mark of dress as a token by which their willingness or desire in the premises, should be made particularly known. Now, we have issued this *our Proclamation,* giving leave, ordering and commanding, that the ladies, spinsters, females, maids, girls, and unmarried women, may and do make the sleeves of their dresses, large in proportion to their desire to be married. Thus those who most exceedingly desire soon, and cannot well delay the happy hour much longer, may say so, saving their blushes consequent on such declaration, by putting over and above what is necessary for comeliness or comfort, in their sleeves, seven yards of silk, chintz, calico or other stuff. If they simply desire, pretty considerably to be married, they may reduce the quantity to five yards. If they merely wish to be modestly understood as being willing to be respectfully courted, if a lad to suit them shall present himself—they are in that case confined to wearing their sleeves, the size of a two bushel bag, or only so large as to hide away a moderate sized lover; for that is according to the old fashion worn by the men, as Barley used to say that Swift always came to him with a wig *in his sleeve.*

Given at the Court of Love, this 25th day of July 1830, by command of the Queen.

Adonis, *Secretary.*

COLORS.

Nothing contributes in a more particular manner to heighten the beauty of the skin, than the choice of colors. For example, females of fair complexion ought to wear the purest white; they should choose light and brilliant colors, such as rose, azure, light yellow, &c. Women of a dark complexion, who dress in such colors as we too frequently see them do, cause their skin to appear black, dull and tanned. They ought, therefore, to avoid white robes, and rose color or light blue ribbons, which form too disgraceful a contrast with their carnations. Let such persons, on the contrary, dress in colors which are best suited to them; in particular, green, violet, puce, purple; and then that darkness, which was only the effect of too harsh a contrast, will suddenly disappear, as if by enchantment; their complexion will become lively and animated, and will exhibit such charms as will dispute and even bear away the palm from the fairest of the fair. In a word, the fair cannot be too careful to correct, by light colors, the paleness of their complexions; and darker women, by stronger colors, the somewhat yellow tint of their carnation. We must not omit a very important observation, respecting the change of colors by light. Thus, crimson is extremely handsome at night, when it may be substituted for rose color, which loses its charms by candle light; but this crimson, seen by day, spoils the most beautiful complexion; no color whatever strips it so completely of all its attractions. Pale yellow, on the contrary, is often very handsome by day, and is perfectly suited to people who have a fine carnation; but at night it appears dirty and tarnishes the lustre of the complexion, to which it is designed to give brilliancy.

MISCELLANEOUS.

TOBACCO.

Some of the newspapers are loud in their denunciations against the use of tobacco, in any shape, manner or form whatever. Medical authors without number, are quoted to prove its pernicious effects upon "mind, body and estate." Now, for our own parts, although we could never see into the process of reasoning, by which many people persuade themselves to roll a quid of tobacco as a "sweet morsel under their tongues," we are by no means prepared to "go the whole" against the Indian weed. What! shall we discard a plant, as full of classic and interesting recollections as it is of bitterness, because some puny stomachs cannot stand its powerful influence? Shall we banish from our presence what gives dignity to an Indian Council—adds cheerfulness to an "evening fireside"—mellows friendship and digests a dinner? Spirit of Sir Walter Raleigh forbid it! We are willing to forego the "chewing of the cud," but take not from us the sociable pinch, and the enlivening puff!

[*Alexandria Gazette.*

EDUCATION.

To the Editor of the American Farmer:

Whilst I had the pleasure to conduct the American Farmer, it was deemed expedient not to confine its pages *exclusively* to *practical* agriculture; but to yield a certain portion of the paper to other subjects of practical utility, indissolubly connected with the social happiness and welfare of every family. Amongst these, none is of so much importance as *education.* To know where thorough instruction can be had, on the best terms; to be imparted by gentlemen, who understand the philosophy of their business, and the dignity of their profession; is of the highest import to every parent. The *education* of a boy, in the sense in which it ought to be understood, far from consisting merely in the facts and knowledge gained from books, is constituted of *all the impressions* made upon his senses by *every object that can act upon them.* Let it then be the study of the parent, that *all* these external objects, should harmonize with and contribute to his great design. That is, to engrave deeply on the heart of his beloved child, the sacred principles of honour and virtue; and to augment, by every new perception, his stock of useful knowledge, to secure for him, and within him, the blessing and the consciousness of independence, a consciousness that of himself, and by himself he can command the respect of good men, and strike even the wicked with reverence. In comparison with these attainments what is that base lucre often the fruit of luck as well as of superior capacity? what the transient patronage that often falls to the lot of knaves and parasites? As accessary to the inspiration of virtue and the accumulation of useful knowledge, how many things come into play on the plastic mind of the boy, that are not taken into the account of the common observer? Of these we may reckon as amongst the most efficacious, the character of his instructors—their deportment and principles—their social manners out of school, and their manner of conveying instruction in it. The *spirit* that pervades the intercourse between the teacher, and the youth glowing with health, alive to every impression, encourageable by kindness to the utmost and most beneficent exertion of his faculties; and as easily confounded and depressed by the least act of unnecessary harshness or injustice. What, in short, is unworthy of regard that can make the least impression whilst youth is yet in its most malleable state, like a young tree in full growth, that every touch of the pruner's knife must beautify or deform? Even the scenery that surrounds his school—the rocky precipice, that in youthful daring he ventures to climb, and the bold stream in which he learns to swim in the pride of his growing strength, have their effect on his heart and character throughout his existence. Who that was educated at St. John's has not got entwined in his memory some interesting associations with the venerable poplar that has overshadowed the youthful gambols of a Taney—a Key—a Shaw—and a Johnson,—and defying for ages the peltings of the pitiless storm? Under the impulse of those associations how many have been tempted to address to that noble tree the first effusions of a grateful and poetic imagination?

In sending my eldest boy to the HIGHLAND SCHOOL, the prospectus of which I send you, I have been influenced by all these considerations. It is conducted by gentlemen of experience, ripe scholars, who have studied and taught in the best schools of Europe and America; who aspire more to the honour of rearing youths in the love of literary distinction and the *understanding* and practice of *true* virtue, than to amassing wealth to themselves, or to engrafting some exclusive and relentless creed on the yet innocent, joyous and benevolent minds of their pupils. And if it be desirable at that period of life which should be devoted to intense study, to be in a retired situation, where nature displays herself in features bold and magnificent, yet tranquil and sublime; then assuredly no part of America—perhaps of the world, excels that spot on the North river, where the Highland School stands under a cerulean sky upon a plain surrounded by evergreen mountains and washed by the Hudson, "living in the endless flow of its waters." The artificial objects and signs of civilization in view from the school are but few; yet they too are all of an highly impressive and interesting character. The most striking, and in full view on the opposite shore are the venerable ruins of Fort Putnam, whose evening shadows overstretch the Colleges at West Point. Not far below lies Stoney Point, and not much more distant is Newburgh above: all these are keys that open to the curious and eager mind of youth, political and historical events and recollections, calculated to exercise an impressive and lasting influence on the mind. In the retrospect he learns to abhor the treachery of Arnold, and to feel that no years, no contrition, not all the waters in the ocean, can wipe away the shadow of a stain on the soldier's escutcheon—to him are for ever lost "the soul's calm sunshine and the heart-felt joy." He sees in his ill-fated destiny, the lot of genius and courage giving way to, and at last corrupted by habits of *gaming, profligacy and extravagance;* until his very name has become a by-word of infamy, and a curse even to the innocent who bear it. Brave and enterprising as he was admitted to be, of him it may be said, as by Byron it was said of pirates:—

> "No nation's eyes will on his tomb be bent,
> No heroes envy him his monument;
> However boldly his warm blood was spilt,
> His life was shame, his epitaph was guilt."

But the youthful patriot soon turns in disgust from an object so loathsome even to those who used him; to admire the constancy of Washington, the chivalric heroism of a Gibbon or a Stewart, who commanded the parties that stormed Stoney Point, and the brilliant talents of an Armstrong. In the future he sees going forth annually from the hives of learning at the Point, gallant soldiers, on their way to teach through the nation the science of self-defence against foreign encroachment; whilst they display in their own persons examples of subordination to the civil authority, and devotion to the union.

Another most significant recommendation of the Highland school is, that it is known to enjoy the confidence and countenance of Col. Thayer, the accomplished superintendent of the West Point Academy, and that the same system of instruction in mathematics prevails at both schools; thus ensuring peculiar advantages to those students under Professors Beck and Watson, who propose to finish their studies at West Point; but its best guarantee is the various learning and professional pride of those who conduct it. Of all the blessings in which a nation can abound the choicest are good institutions for the instruction of youth—they are the roots from which all others spring, and which, being left to perish, all others perish with them. J. S. S.

HIGHLAND SCHOOL.

We have united for the purpose of establishing and conducting an Institution for the liberal education of boys, and from the advantages which we are able to offer, hope to deserve the confidence of parents. One of our number, a native of Germany, from the circumstance of having received his education in that country, and of having been Professor in the University of Bale, in Switzerland, is familiarly acquainted with the German mode of instruction; the others are graduates of Harvard University, and all of us have been for a long time engaged in the business of education in the school of Round Hill, Northampton, and other seminaries of New-England. We shall endeavour to unite the advantages of these schools, with such improvements as experience and reflection have suggested, and no pains will be spared to give our pupils a thorough intellectual, moral, and physical education.

The school is to be established at Philipstown, Putnam county, New-York, on the east side of the Hudson, directly opposite West Point. The situation is healthy, easy of access, at a convenient distance from the city of New-York, and in the midst of the beautiful scenery of the Highlands.

The subjects of instruction will be adapted to general or commercial pursuits, and to a classical course. The instruction necessary to prepare the pupils for the pursuits of practical life, will fit them for the Counting Room; and the classical studies will be either pursued to such a point as will enable the scholar to enter any of the classes of our colleges, or continued, at the pleasure of the parents, until a competent knowledge of the ancient languages, and other branches of a collegiate course shall have been acquired.

The studies common to all the scholars are, Reading, Writing, Drawing, Grammar, Rhetoric, Elocution, Ancient and Modern History, particularly that of the United States, Geography, Mathematics and Natural Philosophy; this last branch is to be taught by means of Lectures as well as recitations. Those studies peculiar to the commercial division, are Book-keeping, a thorough practical knowledge of the forms and business of the Counting Room, and the French, German and Spanish languages; peculiar to the classical division, will be the ancient languages, in connexion with the auxiliary branches of Roman and Grecian antiquities, Mythology and Ancient Geography, and if circumstances permit, one or several of the modern languages.

Religious instruction, as a means of forming the character and the best foundation of sound morals, is, in our opinion, of the greatest importance: we are firmly convinced of the possibility of inculcating all the essential principles of Christianity, intended to regulate the conduct of man towards God, his fellowmen and himself, without imparting the tenets of a particular denomination, and such is the religious instruction we shall endeavour to communicate. With respect to morals and manners, it is expected that besides a strict but parental discipline and the inculcation of moral principles, the constant presence of the families of the instructors will tend to impart those sentiments and manners which distinguish the true gentleman.

The physical powers of the pupils will be developed by a systematic instruction in Gymnastics and by games calculated to exercise personal strength and activity, both of which have the most salutary influence on body and mind, if conducted judiciously.

The supervision of the boys will be constant, and none of them will be permitted to leave the bounds, which are extensive, without the permission of one of the Instructors.

The terms per annum will be Two Hundred and Fifty Dollars, payable semi-annually in advance. This sum will include all charges except those for clothing, books, stationary, mattress and bedding.

Boys will be received at any age under sixteen years; no one will be admitted who does not bring testimonials of good character, and a written assurance from his parents not to furnish him with pocket money; nor will any one be suffered to remain who exercises an injurious influence on his companions

There will be two semi-annual vacations of four weeks each; one commencing on the 15th of June, the other on the 15th of December. Boys whose parents desire it, can remain at the institution during the recess, under the care of one of the Principals, without any additional charge. A punctual return on the first day of the term will be insisted upon.

CHARLES BECK,
JOHN LEE WATSON,
ADOLPHUS EUGENE WATSON.

Letters are to be directed to COLD SPRING, Putnam county, New-York.

REFERENCES.—*Col. S. Thayer, West-Point.*
Prof. N. F. Moore, New-York.
John S. Skinner, Esqr. Baltimore.

RED LEGGED PARTRIDGE OF FRANCE.

Twenty-seven of these valuable birds may be seen on board the ship Benjamin Morgan, lately arrived from Port Mahon, in the Mediterranean, and now lying at the Rail-way wharf. The number was originally thirty-six, but they were at first confined in cages, and nine of them died. A cabin was then fitted up for the survivors, and they have arrived in excellent order. These birds are much larger than the American partridge, but not so large as the pheasant. Mr. Morgan has long been anxious to introduce the breed into the United States, and as his ship returned on this occasion in ballast, and without passengers, his agent had an opportunity of carrying his wishes into effect. We hope his example will be imitated as opportunities occur, by other merchants. We should try to naturalize in our country every useful animal, and every useful plant. [*Philad. Gaz.*

VALUABLE DISCOVERY.

Palmyra, Waye Cy. N. Y. August 20.

Mr. John G. Pendergast, painter, of this village, has discovered a material for mixing paints, which promises to be of immense value. It incorporates completely with linseed oil, and may be used as a substitute for that costly article. The cost of the new material is comparatively trifling, and abounds in almost every part of the United States. Paints are mixed and prepared with it, in the same manner as with linseed oil and spirits of turpentine. The most satisfactory experiments have been made. It produces a smoother and harder surface, answers for any colour, and is equally impervious to water. The inventor has obtained a patent, and has already disposed of rights to several of the first establishments in this state. He also introduced his paint in Washington, and had the pleasure of seeing it used on the public buildings in that city. [*Wayne Sentinel.*

INTRODUCTION OF RICE INTO AMERICA.

Martin says, in his history of North Carolina, that the planting of rice was commenced in this country, in the year 1693 as follows: a brig from Madagascar, on her way to England, came to anchor off Sullivan's Island. Thomas Smith, going on board, received from the captain a bag of seed rice, with information of its culture in the east, its suitableness for food, and its incredible increase. Smith divided the seed among his friends, and an experiment being made in different soils, the success surpassed the expectation the captain had excited. Thus, from this small beginning, accidentally occurring, arose the staple commodity of Carolina, which soon became the chief support of the colony and the great source of its opulence. [*Raleigh Register.*

SINGULAR CIRCUMSTANCE.

In the month of April, 1829, a calf, two months old, belonging to Mr. S. Sandwith, of Beckermet, was observed to have something in its throat, which obstructed the passage, and was evidently the cause of much pain and uneasiness to the animal. A cow-doctor was sent for, who immediately removed the substance by forcing it down the throat of the poor beast. From that period until the beginning of June last, it appeared healthy, and throve as well as any of its companions, but about that time a protuberance formed upon its ribs, and the cow-doctor was again sent for, but before his arrival there was seen protruding through the swelling the end of a stick, which Mr. Sandwith extracted. The stick was 12 inches long, and two inches in circumference; and on Friday last, another stick was drawn from the same place, which measured 12 inches in length. There seems not the least doubt but the sticks thus extracted were the obstruction removed by the cow-doctor upwards of twelve months ago. The animal is now doing well. [*Lancaster (England) Gazette.*

An experiment of a novel and extraordinary description was undertaken here (Derby) last week, in the transplantation of a tree of large dimensions, the weeping ash, which has so long been the admiration of the public. This beautiful tree has been removed, without sustaining any damage, to the picturesque domains of Chatsworth, where his Grace the Duke of Devonshire has selected a most favourable and appropriate situation for it, in the north front of his princely mansion. On wresting up the tree with the well adapted and powerful machine applied for the purpose, it is calculated that the resistance of about fourteen tons of soil in which its widely-spreading roots were embedded was to be overcome. The weight of the tree in the state in which it was conveyed, a distance of twenty-eight miles, to its present situation, is understood to be from seven to eight tons. One of the roots drawn up had extended itself to more than twenty-eight feet from the bole of the tree. [*Eng. pa.*

Cinci nati, (Ohio) August 26.

Cows Poisoned.—A large number of cows, belonging to the citizens, are turned out daily to graze on the common Mill Creek bottom, where they eat of some plant which poisons them. Last year, a number of cows were poisoned from grazing on those bottoms, and two persons lost their lives by skinning some of them. This season, we are informed, as many as fifty valuable cows have been lost from the same cause, and four persons poisoned and died, who were employed in taking off their skins. We mention this fact as a caution to those whose cows may sicken and die from being poisoned.

THE FARMER.

Baltimore, Friday, Sept. 17, 1830.

Exchange Papers.—The U. S. Telegraph, National Journal, Louisville Focus, Maryland Republican, and New York Commercial Advertiser, are not received at the office of the American Farmer. We again request, that papers with which we exchange, *be directed to "American Farmer."*

The Crops in England.—The London Globe, of July 20, observes, "it has been erroneously stated by some of the morning papers that the Dukes of Cumberland and Sussex, had taken off their mustachios. The Duke of Cumberland has taken off a little of his whiskers, but he appeared in the House of Lords last night, to take the oath of allegiance, and this morning on parade, with his mustachios as large as before."

Latest Foreign News.

By several arrivals since our last we have news from Liverpool, to the 9th August. The latest accounts from Paris are to the 5th, at which date every thing appeared auspicious to the cause of the people. All the provinces heard from, had followed the example of Paris, but generally without so much bloodshed. Charles X. had abdicated the throne in favour of his grandson, the Duke of Bordeaux, and the Duke de Angouleme, son of Charles X. and heir apparent, had also relinquished his claims to the throne. Whether the condition of this abdication would be acceded to by the nation, had not been decided; and it is probable that upon the decision of this question will depend the continuation or cessation of the revolutionary struggle. The voice of the nation is strongly in favour of a prince chosen by the people, if any. However favourable the present state of things may be, it is too soon to form an opinion of the issue. The French probably, have more to fear from their own detonating passions, than from their late king and his allies.

The Chambers were opened on the 3d of August, by the Duke of Orleans in person.

The Chamber of Deputies contained upwards of 250 members. The two sections of the centre gauche were the most numerously attended. Those of the right scarcely contained 20 deputies, and among them were E. Berryer, Polignac's protege; M. Hyde de Neuville, who was seated at the extremity of the cote droit: M. Alexis de Noailles, Aid-du-camp to Charles X. &c.

Some reports say, that Charles X. has chartered two American vessels to bring him and his suite to the United States—it is certain that he was on his way to Cherburg, whence he was to embark for some place of exile. The following details bring up our summary to the latest date.

The King and his household fled from St. Cloud to Rambouillet on the 1st of August. Here he numbered a considerable military force. Commissioners were sent to treat with him, and an abdication, together with a liberal allowance, was agreed upon. These commissioners had the generosity to cause a million to be delivered immediately to the ex-royal family, who wanted money, and had asked four millions for its journey. The three other millions were going to be sent to Charles, and the commissioners devoted themselves to escort him, to spare him all dangers or to share them with him.

Subsequently, as the King had received an accession of troops numbering 15,000, who seemed inclined to adhere to him, he refused to comply with the terms he had himself dictated, and also refused to restore the crown jewels.

The people of Paris became enraged at this intelligence, and a large military force set out immediately to march upon Rambouillet. On receiving news of the approach of these forces, the troops of the King deserted the royal cause. The ex-King thereupon abdicated the throne in favor of the young Duke of Bordeaux, appointing the Duke of Orleans Lieut. General and Regent of the Kingdom, during the minority of the prince.

Being subsequently informed that 40,000 of the National Guards, headed by two commissioners who had been with him, were coming upon him, Charles came to an immediate decision, and gave up every thing.

M. Farcy, one of the editors of the Globe was killed at the asault upon the Tuilleries on the 29th July. At the Theatre Francais, a benefit is announced for the widows and children of the slain.

Letters from Bordeaux announce that liberty had not been restored there till after a bloody struggle. The troops fired on the citizens by order of M. de Cursay, the Prefect of La Gironde. But the blood he has caused to be spilled did not go unpunished, for this cruel man perished in the midst of the fray.

By an official ordonnance, dated August 1, the French colors are resumed, and no other than the tri-coloured cockade is to be worn.

Gen. Valaze, commander of the Engineers, had arrived at Toulon from Algiers, on board the Scipion, with five millions from the Regency of Algiers.

To-day at 4 o'clock the Duke de Chartes (son of the Duke of Orleans) entered Paris at the head of his regiment, proceeded and followed by the National Guards of Rouen and Evreux, and a very considerable number of young men. He proceeded along the boulevards to the Palais Royal. The Duke of Orleans and the Duke of Nemours were to the right and left of the young Prince. The crowd assembled on his passage welcomed him with the most lively acclamations.

The accounts which have been given in some journals of the number of killed and wounded were incorrect.

From the inquiries that have been made, it appears that the number of killed and wounded on the 27th and 28th July, was from 1600 to 1700. It is probable that it was more considerable, but we cannot have an account of the wounded who were taken to their own homes. We speak here only of the hospitals.

The Duke of Orleans had subscribed 100,000 francs for the relief of those who suffered during the three days revolution in Paris.

Subscriptions had been opened in London and all the great towns, for the relief of the patriotic sufferers of France.

Of the many anecdotes of individual heroism given in the private letters from Paris, we select the following of a *Brutus* in low life:—

In the St. Honore on the 27th, a woman, between 30 and 35 years of age, was struck dead by a ball in the head: a journeyman baker, with his naked arms and legs, and of a colossal stature and herculean force, immediately seized the corpse and holding it over his head, carried it to the Place des Victoires, crying out Vengeance! There, after having laid it down before him, upon the ground, and at the foot of the statue of Louis XIV. he harangued the multitude who surrounded him with an energy which made their souls vibrate; after which he took up the body and carried it towards the guard-house of the Bank, which is very near the Place des Victoires, and had scarcely arrived before the soldiers who were assembled at the door, when he threw the bleeding corpse at their heads, saying, "There, see how your comrades treat our women! Would you do as much?" "No," said one of the soldiers, taking him by the hand. All the soldiers looked pale, and tears fell from the eyes of the officer.

ENGLISH MARKETS.

London, Aug. 6.

The rapid rise of average of wheat, as exhibited by the annexed weekly return, renders it evident that the lowest scale of duty, as was anticipated, must shortly be reached.

Average Price of Corn for the last week—Wheat, 74s. 11d; Barley 33s. 5d; Oats 29s. 10d; Rye 43s. 2d; Beans 39s. 9d; Peas 42s. 3d.

Aggregate average of the six weeks which regulates Duty: Wheat 70s. 6d; Barley 34s. 8d; Oats 28s. 0d; Rye 43s. 2d; Beans 37s 9d.; Peas 39s. 9d.

Duty now payable on Foreign Corn—Wheat, 10s. 8d; Barley 15s. 4d; Oats 4s. 9d; Rye 11s. 0d; Beans 14s. 0d; Peas 11s. 0d.

Liverpool, August 7.

Cotton.—The import this week is 27,906 bags, and the sales are 13,530 bags at an advance on the better qualities of Pernams of ¼ per lb., and at full prices for other descriptions, viz. 550 Sea Islands at 13¼d to 19d—50 Stained do. 8½d to 12d—4490 Boweds at 6½d to 7 5-8d—2680 Orleans at 6½d to 7 5-8d—3380 Alabamas, &c. at 6¼d to 7½d—890 Pernams at 8½d to 9½d—410 Bahia at 8 1-8d—to 8½d—1310 Maranhams at 7¾d to 8 1-8d—140 Demeraras at 7½d to 9¼d—60 Surinams at 8d to 9 1-8d—230 Common West India at 5¾d—20 Smyrnas at 7½ to 7 5-8d—130 Egyptians at 8¾d—and 170 Surats at 5 1-8d to 5½d per lb.

Drysalteries, &c.—The sales in Ashes this week, are about 500 brls. Pots at 29 to 30s. and Pearls at 33s to 34s. In Naval Stores the operations are 3200 brls. Tar, at 11s 6d to 13s 6d. and 500 brls. Turpentine at 11s.

Liverpool Corn Exchange.

With a slight import of Grain for last Tuesday market, we had little business doing at the following decline from the prices of the preceding Tuesday, viz: on Wheat, 6d per 70 lbs.; on Oats, 2d per 45 lbs.; on Barley, 2d per 60 lbs.; on Beans and Peas 1s to 2s per quarter, and on Flour and Oatmeal 1s to 2s per sack.

Liverpool, Aug. 9—One o'clock.

To-day the market was thinly attended by buyers, and the business done was too limited to fix correctly the prices.—Tuesday's quotations are demanded, but to effect sales a reduction must be submitted to.

NORFOLK, *September* 9.

Bacon is pretty steady at our quotations, (hog round 8½ a 9, and hams 9 a 10.)—A large lot of shoulders and middlings was in the market yesterday, for which 8¾ cts. were offered—9 asked.

Lard is scarce and improving—a lot of 100 kegs was sold a day or two since at 11 cts.—and it is believed that superior small lots of No. 1 would bring 12 cts.

Corn.—We quote 48 cts. at which price a cargo was sold yesterday—the article is scarce.

Cotton.—A small lot of fair quality, *old crop,* from Surry county, was sold on Tuesday at 11 cts. and yesterday 33 bales of inferior quality brought 10¾ cts., cash. New cotton we are assured would readily bring 12 cts—none has yet come in.

Flaxseed.—A parcel was sold one day this week at our quotations—$8 62½.

Prices Current in Boston, Sept. 10.

Apples, best, bbl. 2.00 a 3.00. *Beans,* white, bushel, .90 a —— *Beef,* mess, bbl. 10.00 a 10.50; cargo No. 1 8.50 a 9.00; No. 2, 6.50 a 6.70. *Butter,* inspected, No. 1, new, lb. .10 a .13. *Cheese,* new milk, 6. a .7; skimmed milk, 3. a 5.. *Flour,* Baltimore Howard-st. 5.50 a 5.87; Genesee, 5.25 a 5.62; Rye, best, 3.50 a 3.75. *Grain,* Corn, bu. .58 a 68; Rye, .65 a .67; Barley .60 a .62; Oats .32 a 35. *Hogs'-Lard,* 1st sort, new, lb. 11.50 a 12. *Pork,* clear, bbl, 19 a 20; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.50. *Seeds,* Herd's Grass, bushel, 2.00 a ——; Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, — ; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .38 a. —; White Honeysuckle Clover, — a .38; Red do. Northern, 9 a 10; French Sugar Beet ——; Mangel Wurzel ---- *Wool,* Merino, full blood, washed, .50 a. 62; do. do unwashed, .30 a .35.

Prices Current in Charleston, Sept. 6.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 23. Upland, inferior and common .9 a .10, fair to good, .10 a 10½, prime to choice, .10¾ a .11 5-8. *Rice,* prime, $2¾ a .3.00, inferior to good, do. $2.50 a .2.75. *Flour,* Philadelphia, Richmond and Baltimore Howard st. $6 a —. *Corn,* .65 a .67. *Oats* 37 a .——; Peas, 65. *Hay,* prime Northern, 80 a 85.—*Whiskey,* Philadelphia and Baltimore, hhds. .30 a .—; bbls. 32 a —; New Orleans, old .32 a .34. *Tobacco,* Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax,* .18 a .—; Tallow, Carolina, 8. *Beef,* Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork,* Mess. .14 a 15; Prime, .— a .11, scarce. *Bacon,* .7 a .— cents; Hams, .8½ a 9; Lard, 20 a —. *Butter,* Goshen, .18 a .— inferior, 8 a .10.

BAKEWELL RAMS FOR SALE.

Enquiry for Bakewell Sheep has been so frequent that Mr. Barney of Delaware has left two fine Shearling Rams, (one year old last spring,) with the Editor of the American Farmer, for sale. The price is twenty dollars each, the purchaser to pay expenses, which amount to $1.50 each. They will be sold together or separately. Apply to the Editor of the Farmer.

AGRICULTURAL WARE-HOUSE AND SEED-STORE,

No. 36, West Pratt-street, Baltimore.

ON HAND, and constantly manufacturing, a general assortment of AGRICULTURAL IMPLEMENTS, of the best materials and on the latest and most approved plans. The Subscriber's WHEAT FANS are of the latest improvement, and will be warranted to please. His Patented CYLINDRICAL STRAW CUTTERS have never been surpassed in this, or any other country, for durability, facility of cutting, and adaptation to any power and every kind of long forage; and also for cutting rags for making paper. All persons making, vending or using the aforesaid patented improvements without proper authority from the Patentee, must expect to meet the penalty of the law for all such offences. Also on hand, a general assortment of GARDEN SEEDS, grown and warranted by the Messrs. Landreths, of Philadelphia. J. S. EASTMAN.

☞ All orders promptly attended to.

ALMANAC.

1830. SEPTEMBER.	SUN. Rises.	SUN. Sets.	Length of days.	Moon.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 18	5 55	6 05	12 10	sets.
Sunday,...... 19	5 56	6 04	12 08	6 52
Monday,..... 20	5 57	6 03	12 06	7 25
Tuesday,.... 21	5 58	6 02	12 04	7 55
Wednesday, 22	5 59	6 01	12 02	8 30
Thursday,... 23	6 0	6 00	12 00	9 10
Friday,....... 24	6 1	5 59	11 58	10 35

Moon—First Quarter—24th, 5h. 15m.—Afternoon.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—There is a slight decline in the prices of flour and wheat; the former continues quite scarce. Howard street is dull at $5.25 from wagons. The news from England does not appear to affect the flour market, notwithstanding the prices in England had risen so as to make the reduction of duties to their minimum very probable, it must be recollected, however, that this state of things, is more the result of a common cause,—the exhaustion of the old crop, and no supplies from the new,—than any thing else. Beef still continues quite dull. The supply of live stock has been very great; but it must be observed that very little of first quality is to be found. The excessive drought of the season has done great injury to beef—in some parts the grass has been entirely destroyed; and in all, the pastures have suffered much. Hence, as above observed, the beef market, though well supplied with ordinary quality, is by no means burthened with that which cuts three inches on the rib.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.50 a 8.00. Cuba .14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 401 hhds Maryland, 52 hhds. Ohio; and 2 hhds. Pennsylvania, total 436 hhds.

FLOUR—best white wheat family, $6.00 *a* 6.50—super. Howard-street 5.37½ *a* 5.40—city mills, 5.00 *a* 5.25—Susquehanna, ——; CORN MEAL, bbl. 2.25——GRAIN; red wheat, .90 a .92;——white do. 1.00 a 1.05—common red ——CORN, white, .55 *a* .58—yellow .56 *a* .57--RYE, .— *a* .50———OATS, .30 *a* .——BEANS, 90 *a* 1.00-PEAS, 50 *a*. 60-CLOVER SEED, 5.50 *a* —TIMOTHY, 1.75 *a* 1.87½—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, .75 *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, -FLAXSEED, 1.12½-COTTON, Va. 9½ *a* 10½--Lou. 11½ *a* 12½—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 10 *a* 12-WHISKEY, hhds. 1st p. .30 *a* —; in bbls 32 *a* 33—WOOL, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $210 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, 5.50, *a* 5.62½ No. 2, 5.12½ *a* 5.00-No. 3, 3.75 *a* 3.87½-BACON, hams, Balt. cured 10c.-Feathers, 34½ *a* ——Plaster Paris, cargo price per ton, 4.37½ *a* —ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 3.75 *a* 4.50—Pine Wood, by the vessel load, 1.75. Oak, 2.75 *a* 3.00—Hickory, $4.50.

EDITED BY GIDEON B. SMITH.

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AGRICULTURE.

(From the British Farmer's Magazine.)

ON THE IMPROVEMENT OF WASTE LAND.

BY MR. AITON.

Sir,—Having always considered agriculture as the most important of worldly concerns, and believing that every sound minded man will concur in that opinion, I conceive that my time and labour are well bestowed when I am able to show how the interest of husbandry can be promoted, the cultivators of the soil instructed in any branch of their important profession; or even when I can refute or expose any error in theory or practice, that may tend to mislead the farmers respecting the cultivation of the soil.

When I first began to write on agricultural subjects, I found nobody inclined to dispute the importance of the art of farming, neither in what regarded the interest of the proprietors, the tenants, the labourers, nor the nation at large. At that time all that seemed necessary was to collect and communicate useful information; but for some time past it has become not only necessary to point out practical improvements, but to contend for the preservation of the art of husbandry. Some men, who pretend to be wiser, and who are certainly more impudent than other men, have set themselves in array against the existence of agriculture in Britain, except on land of superior quality; which unfortunately does not exceed one acre in twenty of the surface of Scotland, and probably about one-third part of that of England. Such has been what they term "the march of intellect," (or what some more properly term whim) among a portion of mountebank philosophers and speculative visionary statesmen, that they seem eager to persuade the nation that it would be proper to abandon the cultivation of all land that is of an inferior quality, and to trust to foreign states for a great proportion of the grain we may need. Than this nothing could be more ruinous to thousands and tens of thousands of the families that have their bread from farming and improving land of that sort, or that would be more ruinous to the nation at large.

About three-fourth parts of the land in Scotland that has already been cropped, falls under the description of very inferior land; and yet the number of people who live by farming land of that quality, will, with their children, servants and tradesmen depending chiefly on them, be found to exceed three hundred thousand in Scotland alone. And inferior as such land is, more than the one-half of the grain raised in Scotland, three-fourth parts of the milk, cheese and butter, a still greater proportion of the potatoes and of the domesticated animals, are all the product of that inferior land, which our wise heads wish to be abandoned. Now if that were to be done, what would become of the many thousands of families who at present live by farming such land? Where could they go, or what could they do to procure a livelihood? These visionary economists say, that such land might be turned into pasture. Yes! but it could only be occupied with sheep, or the poorest breeds of Highland cows. A dairy stock could not be kept without fodder in winter, nor could fodder be procured but by cultivating and cropping the land as at present. Nor could potatoes be raised without dung, or dung procured without keeping cattle, or cattle kept without fodder, or fodder raised without cultivating and cropping the land. A shepherd and his dog would farm all the land now occupied by eight or ten families. And if we were to be so cruel as to turn 300,000 souls adrift, and allow the farm-houses on such land, and the implements of labour, to perish, where could we find money to pay for the grain we would be obliged to import from abroad?

It is truly surprising that any man of common understanding should ever have proposed or contended seriously for an absurdity so very dangerous to so large a portion of the sober and industrious cultivators of the ground. This, however, seems to be an age of wonders and delusions. Some argue for depriving the poor of legal provisions, which would be equal to starving them out of existence; while others wish to add many thousands of families to the condition of paupers. Their pretence for such a wonderful measure is to encourage commerce and manufactures; while in reality their scheme would seriously injure both, by depriving them of a large portion of their best customers in the home market. Some manœuvred much, and not without success, to reduce the value of West Indian property; and now the cry is raised against the East India Company, somewhat like that set up by the Radicals to get property divided. Some wish to pull down the Protestant church, and others cry out against every religious establishment; while another party court low popularity by nibbling at the law of church patrooage, and some seek to break up or new-model all our legal institutions. The ministry, by way of "conciliation," sacrificed some of their steady supporters, and allowed speculators to ruin the silk and glove trade, throw our shipping interest into distress on the wildest speculation, for which Jonathan showed his gratitude by framing a new tariff, calculated to increase the injury which our "liberal" statesmen had so incautiously begun. And the same party have in their wisdom removed the barriers which wiser men had set up for the protection of the Protestant church and civil liberty. And this, so far from having tranquilized Ireland, as was promised, has thrown that country into the hands of a demagogue, who acts in concert with a Papish priesthood. But to keep by agriculture.

Instead of abandoning the cultivation of any part of the land now under cropping, I would humbly but anxiously wish to see every possible encouragement given to extend the cultivation of all sorts of land. Every person of sixty years of age, who has paid attention to the subject from his youth, must have noticed that the value and the preduce of the arable land in Scotland has, on an average, been far more than doubled within the last forty or fifty years. And surely no well-informed agriculturist will deny, that if due attention were to be paid to the improvement of the soil for twenty or thirty years more, it might be easily and profitably rendered doubly productive from what it is at present; and in addition to that, it would be easy to reclaim a good many millions of acres of land, now in a state of waste, which though remaining in a state of reprobation, is capable of being reclaimed to great advantage, and to yield grain, grass and roots to an incalculable extent.

The further improvement of the land already under tillage, and the reclaiming of a portion of that now waste, would give profitable employment to many thousands of families now under great privations for the want of work—it would double ten times, and in many cases fifty times, the rental and the produce of such land—mend the climate—beautify the face of the country—raise our food from our own soil—all from a small proportion of the money we pay to other states for grain.

These appear to me to be matters of such high importance as justly to create anxiety for their adoption, and to excuse such as view them as I do, in urging and even repeating their opinions on the subject. And to show that my projects are not visionary, but such as are practicable, I shall endeavour to render them obvious to such as view the matter impartially.

Every person who is advanced in years (except, perhaps, the Cockneys in large cities) must have observed innumerable instances of land of the smallest value that was rented forty or fifty years ago at the merest trifle, but that has since been broken up and reclaimed, and is now yielding twenty or thirty times the rent it formerly gave, and four, perhaps ten times the produce it then yielded. I remember well when the average rent of the whole parish of Kilmarnock did not exceed three shillings per acre; and now, with the exception of two or three muir farms, the average rent of the whole land in that parish is nearly twenty times what it was in 1766. Many similar instances, of not merely an advance of rent, but of a corresponding increase of produce, could be pointed out in almost every parish in the western and arable districts of Scotland; and every man the least conversant in husbandry will readily admit, that if proper courses of improvement were to be followed for twenty years together, the produce of almost the whole arable land, and particularly that which is of a medium quality, might be again more than doubled, and the rent increased in the same proportion, if the value of money remained as at present. It is true that the rent is only a private concern, but the increase of farm-produce is a matter of high importance to all—to the nation, and to every human creature.

The many millions of acres of waste land that now remain neglected in Britain and Ireland, might be made another immense source of riches, attainable by industry, that ought to be attended to, as the improving of it might give profitable employment to many thousands of our industrious labourers, and much grain and other produce might be raised to the community. And if that should for some time at first cost as much, or even more than such grain can be had for otherwise, still the advantage in paying the price to our own labourers, who would expend it in the country, would be an important matter, compared with giving it away to strangers, who take nothing else from us in return. That much of this land could be reclaimed to great advantage, will appear evident from what has already been improved to good purpose in almost every parish in the arable districts of Scotland. To enumerate the instances I have seen, and could point out, of the improvement of waste land, much of it of the worst quality, would occupy volumes. A few instances, however, may be mentioned where partial deserts have been converted into fruitful fields, and the food of man raised where nothing but heath and the worst of herbage formerly grew.

The numerous instances of fields and patches of moss, of the worst description, that are pointed out in my different publications on that species of soil, are before the public, and as they are well known, and have been extensively acted upon, they need not be repeated here. The numerous, or rather innumerable instances of moss culture in every county of Scotland, since I first wrote on that subject, can be no secret to those who are disposed to pay attention to such improvements; and wherever they are known they speak in convincing terms to the credit of the industrious, and reach reproof to the indolent. If 200 acres of the very worst of flow-moss, near Strathaven, which in the recollection of some yet alive was rented far under a penny per acre, has been by human industry improved so as to have yielded more grain than any other piece of land of the same extent in the county of Lanark, and is now yielding from forty to fifty shillings, or upwards, of yearly rent per acre; and if still greater crops have been raised, and a much higher rent obtained, from a similar moss near Paisley, and both these wastes reclaimed by tenants, without being aided by the proprietors, why should any other flow-moss in similar situations be allowed to remain neglected? The success attending the improvement of these mosses, and the high rents they now yield, tender strong reproofs to the proprietors of every such moss, who allows them to remain in *statu quo.*

But if the cultivation of flow-moss of the most forbidding aspect should be thought to be too great an undertaking, there are millions of acres of bent-moss, covered with green sward, and more smooth and inviting; also of moorish or waste land, that offers a fairer prospect to the cultivator, and to neglect the improvement of which is a crime. Neither is there any want of instances of successful and profitable cultivation of such land in the western counties of Scotland. To some of these it may be proper to advert. In some of my communications to the late Farmer's Magazine, I mentioned the very spirited improvements made by Mr. Stenton on the farm of Beggarsheilds, in Lanarkshire, whereby he raised the rent of that farm from £150 to £800 at the time I wrote, and which would advance when the improvements then going on were finished, to £1200 or more, which merits attention. And as these improvements did not cost him more than he paid for the farm when the rent was at £150, in the year 1814, and as they have already repaid much of that expense, the speculation has been profitable. I also mentioned a similar improvement, though on a smaller scale, made by John M'Kerdy, Esq. of Birkwood, in the parish of Lesmahagow, begun in 1818, from the laudable motive of giving temporary employment to some cotton weavers, then in distress. The land he improved was partly deep flow-moss—some, moss covered with green herbage—but most of the field was bare hard land, bearing little but heather, and much incumbered with stones. But so spiritedly and judiciously were his improvements conducted, that the land now brings him more than twenty times the rent it yielded ten years ago; while the first course of crops in his own hand, while the improvements were in operation, have refunded the whole expense. As this piece of ground (about 300 acres) is situated in the middle of a range of land similar to what it was formerly, mostly belonging to the Duke of Hamilton, and which remains neglected, the improved land exhibits a curious contrast to that which is still in a state of nature; and it speaks a strong reproof to the proprietors, who keep it in that state to their own injury and shame. Mr. M'Kerdy's improvement has induced Mr. Thomson of Scorryholm, and Mr. Thomson of Berkenhead, to follow, in part at least, the example set before their eyes. And Mr. Smith of Berkhill, Mr. Hamilton of Alton, Mr. White of Newark, and others in that parish, have all reclaimed part of their wild ground to good purpose.

All these improvements have been made by proprietors on their own property, and where of course they will reap the whole profit, which will be permanent. But so obviously advantageous has the improvement of such land been considered, that industrious tenants, when they had fair bargains, and leases of reasonable endurance, have broken up and reclaimed moss and other waste lands to a considerable extent. I could mention hundreds of instances of such improvements being made by tenants, on small scales, on waste land. The tenants of several farms in the parish of Galston, the property of the late Nicol Brown, of Lanfine, Esq., have reclaimed several hundreds of acres of moss and muir land from a state of waste, and rendered it twenty times more productive of grain and valuable produce, within the last twenty years. Similar improvements have been made on the estate of Browncastle, in the parish of East Kelbride, about the same time. But in these cases the merit of the improvements belongs chiefly to the proprietors, who laid down proper courses for the tenants, and gave them reasonable encouragement in improving the land. Instances, however, are not wanting of tenants making, of their own accord, and on leases of ordinary endurance, very important improvements on the waste land on their farms, without the smallest aid from their landlords.

The farm of Bentston, in the parish of New Cumnock, was, after the beginning of the present century, rented at £65 yearly; but from the exertions of the tenant in reclaiming waste land, altogether of his own accord, the number of cattle kept, and the grain raised, were more than doubled, and the farm on the expiration of the lease was let at £214. The rent of the farm of Garlefan, in Old Cumnock, was by similar improvements, made by the tenant of his own choice about that time, raised from £20 to £100 of rent. The farm of Ivesyard, in that parish, was then also raised from a rent of £45 to £240. And the farm of Leighstraw, in the parish of Muirkirk, has been improved by the present tenant, Mr. Murray, so as to yield four times the grain and support three times the number of cattle it kept thirty years ago; and the rent has been raised from £40 to £160. In addition to these I shall only mention the improvements made by Mr. William Weir, on his farm at Shollskerk, and those executed by Mr. John Steel, on the lands of Bankend.

Mr. Weir has within the last ten or eleven years, broken up, cropped, and then laid down to hay and pasture, a considerable extent of moss land, much of it many feet in depth, and of very little value, but which he has made to yield crops of oats equal to those reaped from the best land in that or any of the neighbouring parishes. He has also reclaimed and cropped extensive ranges of dry waste land much incumbered with stones, and has rendered it ten times more valuable, and far more productive than formerly. The Highland Society have, in testimony of their approbation of Mr. Weir's spirited improvements, presented him with an elegant silver jug, with an appropriate inscription. He is still extending his improvements on the land he holds on lease from the Duke of Hamilton, and on a farm Mr. Weir has lately bought, both of which he has rendered three times more valuable than formerly.

The property of Bankend, in the parish of Lesmahagow, extending to 800 acres, of which only 50 acres were formerly arable, and the rest a sheep-walk overgrown with heather, and most of it covered to various depths with moss earth, was in 1786 rented at £40. It was then sold by judicial authority, and went off at the price of £1800. In 1790 this property was let to John Steel, for nineteen years, at the rent of £75. At the end of that lease it was again let to Mr. Steel, for nineteen years more, at the rent of £90 for the first year, and £200 for each of the next eighteen years. And in 1828 Mr. Steel entered on his third lease of that property at the rent of £255.

These advances of rent would no doubt proceed in part from the advances in the price of cattle, and fall in the value of money; but they proceeded still more from the great improvements which Mr. Steel has made on the land since he entered into the possession of it, in 1790: and as these were made of his own accord, and without his being bound to do so, or getting the least aid from the proprietor, except in building houses, it is proper his improvements should be made known for his honour, and to stimulate others to similar exertions. Mr. Steel has, since he entered to that property, broken up and converted into arable land 250 acres of waste land, into which neither plough nor spade had ever before entered; thereby extending the arable land from 50 to 300 acres. And during each of this and the last year he has ploughed up 30 acres yearly of waste land, never before turned up; and he is preparing to extend his conquests still further during his lease.

Till 1790, 500 acres of that property which is now occupied by Mr. Steel himself, was under lease to a neighbouring store-farmer at the rent of £9; and now Mr. Steel has improved that part of the estate so much, that he keeps on that piece of land, twenty-one milch cows, thirty young or dry cattle, four horses, and eight scores of sheep; besides having from twelve to fifteen acres under grain crops, and four or five acres in potatoes and turnips; all of them abundant crops. The other 300 acres or so is sub-let to five different persons, every one of whom have followed Mr. Steel's example, in reclaiming considerable ranges of their respective possessions.

In 1790, under the old regimen, only *eight* milch cows were kept on the whole estate, and no more than twenty-six stones of skim-milk cheese sold. Now *seventy* milch cows are kept, and from six to seven hundred stones of sweet-milk cheese brought to market every year; and the quantity of grain is equally increased, and the potatoes twenty bolls for one—all by breaking up muir land.

Like other rational improvers, Mr. Steel and his sub-tenants do not always proceed in one way, but vary their operations to suit the quality and condition of the ground and local circumstances. By putting sand on a piece of level damp moss, and applying lime and dung, the moss has been formed into excellent meadow ground. In dryer ground, where the moss earth was not deep, and the heather long and bulky, Mr. Steel pulled up and burnt the heather; and by applying a top dressing of lime and some dung, and sowing grass-seeds, chiefly holcus, he has turned the land into pasture of ten times its former value; or where the ground was more level and damp, it has in that way been converted into good meadow. He generally ploughs with Mr. Finlayson's paring plough a good many acres of the smoothest and dryest parts of the mossy land about the end of harvest, or early in winter, and applies a dressing of lime next summer, when the moss ground is so dry as to carry horses and carts; after which he sows the grass-seeds, and has always good pasture by the second summer. He sometimes takes one crop of oats; and when the season is favourable he has generally from five to eight, and sometimes ten bolls of good oats on each acre; and in all cases, with or without oats, the pasture is ten times more valuable than formerly. When once he has expelled the heather and moss plants, by ploughing and liming, and brought a green sward on the surface of the ground, if it gets a moderate dressing of hot lime in summer, and if it be ploughed early in winter, and sown with oats in the spring, it will yield a most valuable crop, equal to that on the best land. Wherever there is a height or roundish swell on the surface of the moor, with damp or marshy ground round it, Mr. Steel ploughs and limes the height, and sows grass-seeds, which not only forms the ground so ploughed and limed into fine pasture, but by the rain-water washing some of the lime and mud on the damp ground in a lower situation, converts it into excellent pasture or meadow; and he often breaks up and limes these swells for the double purpose of enriching both them and the lower ground, on which the water runs from the height.

The greatest objection that can be made to Mr. Steel's modes of improving, is his breaking up patches of the land here and there, and not working it up regularly as he advances. But as he is only a tenant on a lease of moderate endurance, and paying a rack-rent, and getting no aid from the proprietor in his improvements, it is natural for him to break up the best and easiest parts of the waste land, and to leave those that are coarser, or unlikely to make the best return. His improvements on the whole do him great credit; they have greatly improved the land he occupies, and set a good example to other tenants. If as much had been done to every other farm of similar extent and condition over Scotland and England, we would not now have been importing grain from any other country.

Doctor Russell has proceeded much in the same way as Mr. Steel, in breaking up waste land on his lands of Sheriff Clengh, in the parish of Crawford John, to the extent of several hundred acres.

If so much has been done by these and other *tenants*, acting of their own free will, and with such spirit and success, how can the *proprietors* of such land excuse their indolence in neglecting to improve their property, which would enrich themselves and their families, beautify the face of the country, improve the climate, give employment to industrious labourers, increase human food, and improve the resources of the nation? Why should our peasantry be idle, and suffering privations, while we are sending millions of our money every year to other nations for the grain we might easily and profitably raise from our own neglected soil? What pursuits could be more honourable, profitable, patriotic and praiseworthy, than in employing a portion of our labourers in raising such grain and other food as we need to supply the nation from our own soil? Does gambling, or hunting, or politics, or any species of pomp, or extravagance, or foible, yield such delight as would be derived from giving employment to the needy, improving the soil to their own advantage and that of the nation? But alas! too many of our proprietors neither have themselves the virtue to improve their estates, nor activity to employ such as are qualified or willing to do so; or even to induce the tenantry to improve the lands they occupy on fair and reasonable terms. Some of our proprietors are becoming so very *patriotic* as to retain power to turn out every one of their tenants on giving them one year's notification. Surely no tenant, when placed on such a precarious footing, would act wisely in improving any part of the land he occupies, while he might be, at the will of his laird, or the knavery or caprice of a factor who might not be too rash in implementing his promises, deprived of the fruits of his own industry.

I am, &c. William Aiton.

Hamilton, 4th January, 1830.

WHEAT.

A new kind of wheat is mentioned in the (London) Gardener's Magazine, as having been introduced into Great Britain from China. It is said to yield a whiter flour than any other species of wheat, and to be easily cultivated.

The following report to the Hamilton county Agricultural society by Dr. Wallace, on the Spanish wheat distributed last year, gives us reason to hope that the soil and climate of Ohio are more favourable to the cultivation of that valuable kind of wheat, than we had expected from the experiments formerly made by some of our friends among whom we had distributed a small parcel of this grain. The best kind of Spanish wheat is, in Europe, more valuable, by at least fifty per cent. than the best American wheat, but it is so highly esteemed in Spain, that very little of it is ever exported from that country. If its qualities should not deteriorate here, its introduction will be very beneficial to the agricultural interest.

[*Western Tiller.*

Wm. Cary, Esq.
President of the H. C. Agricultural Society.

Sir—Respecting that portion of the Trigo Recio wheat forwarded by Judge Burnet, and committed to my care for experiment, I have the following report to make:

Understanding that it was fall wheat, and influenced by the general opinion that fall grain would not come to perfection if sown in the spring, I reserved a part to be sowed this fall, and planted in drills, four inches apart, one hundred and thirty-seven grains, on the 22d of March. It commenced shooting out heads on the 31st May, was cut on the 20th July, and produced 876 heads, averaging 71 grains; the whole product being by estimate 62,196 grains, or an average of 454 grains, nearly, for each grain planted. The straw is remarkably thick and strong, with large leaves, promising to furnish a much greater quantity of fodder than common wheat. The head is short and thick, with a beard much larger than that of barley; the grains very compactly set. The grain is large, hard and translucent. Should it flour well, and actually possess the property of resisting the weavil, as is said, its very superior productiveness will render it a valuable acquisition to our farmers. Of the number of heads formed, twenty-two did not fill, which, on examination, I found was owing to a white worm, immediately above the upper joint; a number of these worms were found in several neighbouring wheat fields. A portion was also lost by the heedless depredations of visiters, having been pulled to gratify curiosity, through thoughtlessness, or some other unascertained operation of the mind, if indeed the mind is in any way chargeable with the action. These spoliations, so unprofitable to the perpetrators, are extremely vexatious and discouraging to the experimental agriculturist and horticulturist. Could ladies and gentlemen be impressed with the propriety of exercising a little self-restraint while visiting the gardens or grounds of their friends, and enjoying the fruits of their industry and taste, they would frequently be saved the mortification of unintentionally inflicting unavailing regret upon their entertainers.

The quantity of loss sustained in this case, cannot of course be ascertained, but may safely be estimated at five per cent. Two other kinds of wheat were mixed with the Trigo Recio; the heads longer, but less compact and containing fewer grains. One kind is bearded, the other bald except four beards from the top of the head, They have been separated for further experiment.

Your most obedient, D. C. Wallace.

ANOTHER SCOURGE.

Worms of a reddish brown colour, black dotted, with varied stripes, white beneath, many legged, covered with occasional sharp hairs or stings, from ½ to 1¼ inch long, similar to the common worm found in the silk end of corn, have made their appearance in this county, within the last two weeks, and done much damage to the corn crop, by destroying the blades and green husks, and in some cases attacking the late corn. We have been informed by an extensive farmer, that in a field of twenty acres of corn he shall not save 400 bundles of fodder from the ravages of these worms; and there are other farmers who are suffering more, if possible. The crops on Main Broad River have sustained the most injury; it is said, that in the morning from 100 to 200 of these worms may be found under and within each bundle of fodder as it lies on the ground—every turf and stone is their covering during the day: while in the night they pursue their depredations. Since the light shower, which fell on Sunday last, they are said to be less numerous.

[*N. C. Spectator.*

HORTICULTURE.

(From the North American Sylva.)

OLIVE TREE.

Olea europæa. *O. foliis lanceolatis, integerrimis; racemis paniculatis.*

Since the introduction of the vine, the Olive seems principally wanting to complete the vegetable riches of the United States; and, probably, it might be cultivated with success on some portion of their soil.

The genus of the Olives, of which one species only is found in North America, is more diversified in the eastern hemisphere: nine species are mentioned by botanical writers, which are natives of remote extremities of the Old World. The *Olea fragrans* grows in China and Japan: its flowers are impregnated with the sweetest odour, and are employed by the Chinese to perfume their tea.

But none of these species forms an object of great importance in the rural economy of the regions to which they are indigenous, nor does their introduction promise very beneficial fruits to the agriculture of other countries. It is far otherwise with the European Olive. This ornament of the vegetable kingdom, which is called by Columella the first among trees, has constituted, from the remotest antiquity, the pride of some of the most celebrated regions of the globe; and, aside from the commercial value of its products, it is invested, both by sacred and profane history, with a thousand interesting associations.

It is difficult, or rather impossible, to assign with precision the native climate of the Olive: the most probable opinion is that it came originally from Asia Minor, and that it was also indigenous to Egypt, or introduced into that country at an early period of its settlement. It was transplanted to Greece by the Egyptian colonies. The Phenicians probably carried it to Carthage, and the Carthaginians to Spain. Before its introduction in Spain, the Phenicians carried on a lucrative trade with the Spaniards in oil, which they exchanged for bars of gold. Pliny informs us that this culture was unknown in Spain and Italy in the reign of *Tarquinius Priscus*, but that when once introduced it was rapidly diffused. The Olive was planted in France by the Phocean colony which founded Marseilles, 600 years before Christ.

The Athenians held the Olive in such esteem, that they ascribed its production to their tutelary deity. This beneficent miracle, which is retraced in the monuments of Athens, is differently represented by ancient authors; it is thus agreeably related by *Apollodorus Atheniensis:* In the reign of Cecrops leave was first given to the Gods to assume the patronage of cities, in which they might appropriate to themselves peculiar honours. Upon which Neptune came into Attica, and, standing in the middle of the citadel, smote the earth with his trident and caused the sea to flow at his feet. After him appeared Minerva, who, calling Cecrops to be a witness of what she was about to perform, caused an Olive Tree to spring from the ground. A contention hence arose between these divinities, to appease which Jupiter appointed the twelve Gods to be judges of the dispute, by whom, on the testimony of Cecrops, it was decided in favour of Minerva. The goddess, thus became tutelar divinity of the city, called it after her own name; and Neptune, irritated by his defeat, inundated all Attica to revenge the affront.

The Olive has flourished chiefly on the shores of the Mediterranean Sea, between the 36th and the 44th degrees of latitude. It still abounds in Greece: in the northern provinces it requires to be placed on hillsides exposed to the south, that it may be warmed by the reflected heat; but in Attica the climate, as well as the soil and face of the country, is peculiarly favourable to its growth. Near the foot of the mountains the Olives form vast curtains of a pale green, which is agreeably contrasted with the deeper verdure of the meadows beneath, and with the dusky grey of the rocks above. The beautiful plain of Athens, as seen towards the northwest from Mount *Hymettus*, appears entirely covered with them. The Wild Olive grows upon the mountains with the Pine and the Oak, and the cultivated varieties are reared about the villages with the Fig Tree and the Pomegranate Tree.

The produce of the soil is said to be one third greater when planted with Olives, than under any other species of culture; and oil is the principal article of commerce which affords the Athenians the enjoyments of life and the means of paying their taxes.

But the industry of the Greeks languishes beneath a despotism restricted to no forms and tempered by no public opinion, whose extemporaneous oppression it is impossible by the most ingenious calculations to elude. In ancient Athens a premium was given for the multiplication of the Olive, and severe penalties were inflicted upon proprietors who destroyed it even on their own estates. The Turks, on the contrary, subject it to a return of one tenth, to which is added a tax of a *para* for each tree, imposed by Sultan Selim III. To avoid the exactions to which he is a prey, the unhappy Athenian peasant frequently prefers cutting down his Olives, or selling them at a price unequal to the value of their annual produce.

The Wild Olive is common on the islands of the Propontis, and upon the declivities sloping to the sea upon the Asiatic side of the Hellespont.

Perhaps one of the finest countries of the world are the Persian provinces of Ghilan and Mazenderan, which lie north of the Caspian Mountains, between the 37th and the 38th degrees of latitude. The soil is fertile and watered by innumerable streams that gush from the bosom of these mountains; the surface is even, and, from the depression of the level and from the proximity of the Caspian Sea, the climate is mild and equable. The Olive is found here with the Mulberry, the Orange Tree, and other productions of warm climates, which do not flourish in the more southern parts of this dry and sterile kingdom.

In Syria the Olive grows spontaneously; but it is rare, and its cultivation is neglected. The natural advantages of a country formed to be the seat of the richest and most powerful empire of Asia, are lost in the absence of an industrious and enlightened population. The slothful and improvident habits of the Turks themselves, and the paralysing influence of their government, are particularly unfavourable to a culture whose fruits are tardy, and which, therefore, requires to be encouraged by the security of property. The Island of Candia produces great quantities of oil, and Mitylene or *Lesbos* exports pickled olives. Several other Islands of the Archipelago share in this commerce.

In Egypt a few stocks of the Olive are seen in almost every village; but it is not extensively multiplied, nor regarded as one of the resources of agriculture. Oil is made in several of the Barbary States, and Desfontaines found the Wild Olive abundant on Mount Atlas.

But the greatest variety of Olives, the most judicious culture, and the most perfect method of extracting the oil and of preserving the fruit, are found in Italy, France, and Spain. *Bœtica*, or that part of Spain which lies between the Guadalquiver and the Sea, is mentioned by Columella as a country eminently adapted to the Olive; and with a more intelligent husbandry it might again become, as it was in the age of Cicero, the admiration of Europe.

France is divided by agricultural writers into Zones, each of which is named after one of its important vegetable productions, and bounded towards the north by the line at which this production ceases to flourish. The *Abbé Rozier* makes four of these Zones succeeding each other from south to north in the following order: that of the Orange Tree, which ceases at Ouliolles, near Toulon; that of the Olive, which extends to Carcassonne, and of which Nismes may be taken as the extreme boundary; that of the Vine, and that of the Apple Tree. In travelling from Toulouse to the shore of the Mediterranean, along the canal of Languedoc, I first observed the Olive at a little distance from Carcassonne: but it appeared to have ventured hither only upon trial, and from the size of the trees I judged them to be a recent settlement. About Béziers, Montpellier, Aix, etc., the hills in every direction are covered with Olives.

Thus we see that this inestimable production has been widely diffused by the bountiful hand of nature.

The beauty of the Olive is far from corresponding to its intrinsic value. It varies in size according to the soil and climate in which it grows; and in France the temperature is not warm enough for its perfect development. Pliny says, that in Spain it was one of the largest trees: *Non alia major in Bœtica arbor.* On Mount Atlas, Desfontaines saw Wild Olives from 45 to 60 feet in height; and Beaujour compares the Olives of the plains of Marathon to the finest Walnuts for stature and expansion. Lofty Olives are still seen in the Island of Corfu, shading the spot where they once enriched the gardens of Alcinous.

In the Olive yards of France these trees are generally from 18 to 20 feet in height, and from 6 inches to 2 feet in diameter. About Aix, Montpellier, etc., they are kept low partly by the disasters to which they are exposed from the cold, and partly by the care of the cultivator, to facilitate the gathering of the fruit. They ramify at a small height, and form a compact and rounded summit. The open, coriaceous foliage is of a pale, impoverished verdure, and the general appearance of the tree is not unlike that of a common willow which has been lopped, and which has acquired a new summit of three or four years' growth.

Indeed the Olive possesses neither the majesty of forest-trees, nor the gracefulness of shrubbery. It clothes the hills without adorning them, and, considered as an accident of the landscape, it does not charge the picture sufficiently to contribute greatly to its beauty. The rich culture for which the southern provinces of France are celebrated is less conducive to rural beauty than some of the humbler species of husbandry. The richest country is not always the most lovely; a country of mines, for example, is usually ungracious to the eye, and the Olive is called by an Italian writer, a mine upon the surface of the earth.

This tree is remarkable for its longevity: the ancients limited its existence to two hundred years, but modern authors assert that, in climates suited to its constitution, it survives its fifth century. Relations are made of the bulk of some of these patriarchal trees, too surprising to be repeated unless they were perfectly authenticated; but in France there are Olives which two men can hardly compass in their arms.

The main limbs of the Olive are numerously divided: the branches are opposite, and the pairs are alternately placed upon conjugate axes of the limb. The foliage is ever-green, but a part of it turns yellow and falls in the summer, and in three years it is completely renewed. In the spring or early autumn, the seasons when vegetation is in its greatest activity, the young leaves come out immediately above the cicatrice of the former petioles, and are distinguished by their suppleness and by the freshness of their tint.

The colour of the leaves varies in the different varieties of the olive, but they are generally smooth and of a light green above, whitish and somewhat downy with a prominent rib beneath. On most of the cultivated varieties they are from 15 lines to 2 inches long, and from 6 to 12 lines broad, lanceolate, entire, nearly sessile, opposite and alternate in the manner of the branches.

The olive is slow in blooming as well as in every function of vegetable life. The buds begin to appear about the middle of April, and the bloom is not full before the end of May or the beginning of June. The flowers are small, white, slightly odoriferous, and disposed in axillary racemes or clusters. A peduncle about as long as the leaf issues from its base, upon which the flowers are supported by secondary pedicles like those of the Common Currant. Sometimes the clusters are almost as numerous as the leaves, and garnish the tree with wanton luxuriance; at others, they are thinly scattered over the branches, or seen only at their extremity. It is essential to remark that they are borne by the shoots of the preceding year. Each flower is complete in itself, consisting of a calyx, a monopetalous corolla divided into four lobes, and of the organs of reproduction, namely, two stamina and one pistil.

A week after the expanding of the flower the corolla fades and falls. If the calyx remains behind, a favourable presage is formed of the fruitfulness of the season: but the hopes of the husbandman are liable to be blasted at this period by the slightest intemperateness of the elements, which causes the germ to fall with the flower. Warm weather, accompanied by gentle breezes that agitate the tree and facilitate the fecundation, is the most propitious to his views.

The fruit of the Olive is called by botanists a *drupe:* it is composed of pulpy matter enveloping a stone, or ligneous shell containing a kernel. The Olive is ovate, pointed at the extremity, from six to ten lines in diameter in one direction, and from ten to fifteen lines in the other: on the wild tree it hardly exceeds the size of the red currant. The skin is smooth, and, when ripe, of a violet colour; but in certain varieties it is yellowish or red. The pulp is greenish, and the stone is oblong, pointed and divided into two cells, one of which is usually void. The oil of the Olive is furnished by the pulp, which is a characteristic almost peculiar to this fruit; in other oleaginous vegetables it is extracted from the seed. The young Olive sets in June, increases in size and remains green through the summer, begins to change colour early in October, and is ripe at the end of November or in the beginning of December. On the Wild Olive five or six drupes are ripened upon each peduncle; but on the cultivated tree a great part of the flowers are abortive, and the green fruit is cast at every stage of its growth, so that rarely more than one or two germs upon a cluster arrive at maturity.

It has been observed from early antiquity that the produce of the Olive is alternate; and in France it is proverbially said to labour one year for itself and one year for its owner. The cause of this phenomenon will be mentioned hereafter. It is asserted that the Wild Olives are sometimes barren; but these must be trees that have sprung from stones dropped upon arid rocks, in whose crevices the roots barely find nourishment enough to sustain the abject existence of the plant.

On the branches of the Olive, and on the trunk of the young tree, the bark is smooth and of an ashy hue. When the epidermis is removed, the cellular integument appears of a light green. On old trees the bark upon the trunk and upon the base of the principal limbs is brown, rough and deeply furrowed. In the spring and autumn, when the sap is in motion, the bark is easily detached from the body of the tree.

The wood is heavy, compact, fine-grained and brilliant. The alburnum is white and soft, and the perfect wood is hard, brittle and of a reddish tint, with the pith nearly effaced as in the Box. It is employed by cabinet-makers to inlay the finer species of wood which are contrasted with it in colour, and to form light, ornamental articles, such as dressing-cases, tobacco-boxes, etc. The wood of the roots, which is more agreeably marbled, is preferred. The Olive was classed by the ancients among the hard and durable species of wood, such as the Ebony, the Cedar, the Box and the Lotus. On account of its hardness it was used for the hinges of doors, and before metal became common in statuary, it was selected by the Greeks for the images of their Gods. Three statues of Minerva were preserved in the citadel of Athens which exemplified the progress of this admirable art: the first, made of Olive wood and of rude workmanship, was said to have fallen from Heaven; the second, of bronze, was consecrated after the victory of Marathon; the third, of gold and ivory, was one of the miracles of the age of Pericles.

From its resinous and oleagenous nature, the Olive wood is eminently combustible, and burns as well before as after it is dried. The value of its fruit renders this property unimportant; but after the severe winter of 1709, which proved fatal to the Olives throughout Languedoc and Provence, the country was warmed for a considerable time with this precious wood.

The Olive accommodates itself to almost every variety of soil; but it shuns a redundancy of moisture, and prefers loose, calcarious, fertile lands mingled with stones, such as the territory of Attica and of the South of France. The quality of its fruit is essentially affected by that of the soil: it succeeds in good loams which are capable of bearing corn, but on fat lands it yields oil of an inferior flavour, and becomes laden with a barren exuberance of leaves and branches. The temperature of the climate is a consideration of more importance than the nature of the soil, as all the varieties of the Olive dread the extremes both of heat and cold. Neither do they delight in very low or in very elevated situations, but rather in gentle declivites with an exposure adapted to the climate, where the fresh breezes, playing among the branches, may contribute to the health of the tree and to the fineness of the fruit.

Notwithstanding the delicacy of its complexion, the Olive is extremely tenacious of life. When the trunk has perished by frost or by fire, it sprouts anew, and we are assured that if a bit of the bark, with a thin layer of wood, is buried in the earth, it becomes a perfect plant.

In this respect the Olive is the polypus of vegetables. It is multiplied by all the modes that are in use for the propagation of trees: by sowing the seed, by layers, by slips, by cuttings of the root, and by sprouts separated from the trunk or from the roots of the parent stock. The most obvious method, that of forming nurseries from the seed, is generally censured in books, and rejected in practice: the difficulty of obtaining the young plants, and the length of time which must elapse before they begin to reward the labour of the husbandman, have discouraged its adoption. But, if these objections could be obviated, this is doubtless the most eligible practice. As the plants thus reared begin a new life, they are more vigorous and of longer duration than off-setts from an old tree; they form also a perpendicular root, which penetrates deeply and secures them from the danger of suffering by drought.

In most of the experiments that have been made of this method, the fruit has been sown entire; and this is even enjoined, as a necessary precaution. But, however it may seem to be indicated by nature, such is not her own process. The stones which produce the Wild Olives are deposited by animals that digest the pulp, or by birds that carry away the fruit in their beaks, devour the pulp and leave the stones to take their chance with the elements. The principles of vegetable physiology, also, support the conclusions derived from these observations. The pulp not only invites the depredations of animals such as field-mice, pies, etc.; but this oily envelope, by preserving the shell from moisture, prevents its decaying in season for the germination of the kernel, which, in the mean time, becomes rancid and loses its fecundity.

Ripe fruit of the finest varieties is selected; that of the *Gros Ribiés* is the best: and the stones, after being separated from the pulp, are cleansed in an alkaline solution. A sheltered situation is chosen, where the earth is thoroughly loosened to the depth of three feet, and enriched with the warmest manures. In the month of March the stones are sown, at a small distance apart, in trenches 2 or 3 inches deep, and covered with earth. The soil should be kept free from herbage, and occasionally watered during the summer. The young plants appear in October and continue to vegetate through the winter; by the following spring, the most thriving among them will have attained the height of 30 inches. The feebler stocks should now be eradicated. With proper attention, and in a favorable soil, the remainder will be 4 or 5 feet high and 6 or 7 lines in diameter, in the course of the third spring, with a perpendicular root of 30 inches. This is the season for transplanting them. Great care should be bestowed upon the preparation of the ground, and the young plants should be placed 3 feet apart. After two years they will be sufficiently advanced to be grafted, and at the end of five years they may be transplanted to the olive-yard. To accelerate the germination, the stones may be kept in fine mould during the summer and autumn, and sown in the beginning of January. They soon begin to vegetate, and before the following winter the young stocks acquire strength enough to support its rigours, while the tender plant that comes up in October is in danger of suffering by the lightest hoar frost. Perhaps some advantage would be found in reducing the thickness of the shell before it is committed to the ground, in order to expose the germ more speedily to the influence of those agents which are necessary to its expansion.

Every mode of grafting is successfully practised on the Olive: the most common and the most proper for young stocks is that of inoculation. The operation should be performed in May, while the juices are in active circulation. Different opinions prevail respecting the insertion of the graft above or below the surface of the ground: grafting below the surface is attended with this advantage, that, when the trunk is destroyed, a generous progeny springs from its base.

A few stocks should be left to form new varieties. Fruit trees and flowers lose, in reproduction, the properties which they had acquired by culture, and tend anew to the state of nature. But in a great number of plants reared from the seed, a few are found that equal or excel the parent: florists consider themselves as fortunate, if, among a thousand Hyacinths or Tulips, they obtain three or four deserving of notice.

The young Olives begin to yield fruit the tenth or twelfth year, and are fully productive about the twenty-fifth or thirtieth: thus Hesiod's observation, that no man gathers fruit from an Olive of his own planting, must be admitted with the abatements of poetry.

A second method of forming a nursery, which has been successfully adopted near Toulon, is by transplanting the young Wild Olives.

The ancients relied principally upon propagation by slips, and this easy and expeditious mode is still generally followed in Spain. A smooth, thriving sprout or branch, one or two inches in diameter, is cut into pieces twelve or fifteen inches long, which are carefully set, without wounding the bark, in ground prepared as for the seed. They are placed at the distance of three feet, and at such a depth that three inches only appear above the surface. To encourage the formation of roots, the larger end, which is committed to the earth, should be smeared with a composition of mould and animal manure, and the end which is exposed to the air should be protected by a covering of clay. Cuttings of the roots, also, buried in an inclined position in trenches four inches deep, will sprout in the course of the year. A few months later the feebler stocks are plucked up, and the more vigorous ones are left at the distance of three feet. Another easy resource is found in the shoots that spring up round the base of an old Olive, or from roots laid bare and wounded for this purpose.

It is necessary, in every case, to ascertain the point at which the original stock was grafted. The offspring is invariably identical in its nature with that part of the parent tree from which it was separated; it requires grafting, therefore, if it was detached from a point below the insertion of the graft, or from a tree which had not submitted to this process.

All these operations are performed at the close of winter or the opening of spring. The length of time which the young plants should remain in the nursery varies with their size and strength, but it rarely exceeds four or five years. During this period the ground should be kept mellow and clean, and occasionally watered in the summer, if the season is dry. But this indulgence should not be prodigally bestowed. Vegetable as well as animal and moral life is susceptible of habitude. For this reason it is, also, an important precept in the formation of nurseries, to select a soil analogous to that in which the trees are to reside. If the young plant is lavishly supplied with nutritious juices, its pores become distended, its fibre gross, and its vegetation luxuriant. Superfluous enjoyments easily become necessaries of life: hence, when it is removed to a different scene, and condemned to struggle for existence in an ungrateful soil, it loses heart and perishes where it might have been long-lived and fruitful, if its temperament had been hardened by early privation.—Thus it fares, if I may be pardoned the reflection, with the mind of an ingenuous youth, which, under better influences, might have been formed to virtue. If the lesson of disinterestedness had been early inculcated, it might have been indelibly learned; he might have been led to sacrifice fame to humanity, as unhesitatingly as he sacrifices pleasure to fame. But, instead of being taught to consult only the unchanging principles of rectitude, and to be satisfied with the pleasures of benevolence, he is sedulously inspired with the love of glory: his ambition is fomented till this ungenerous passion assumes the ascendant in his breast, and becomes the arbiter of its existence.

(To be continued.)

(From Poulson's (*Phil.*) Daily Advertiser.)

PENNSYLVANIA HORTICULTURAL SOCIETY.

The meeting of the Pennsylvania Horticultural Society, on Monday evening, (13th inst.) exhibited a rich variety of seasonable Fruits, and some Flowers of much luxuriance and beauty.

Mr. Alexander Parker produced ten different kinds of Apples, and four of Pears. He also exhibited some October Plums, large white Turkish and blue Figs, the "Madame Grelaud" Peach, and fine large Quinces.

Colonel Robert Carr had some very handsome specimens of Petre Pears, and six varieties of Seedling Pears. Also, four varieties of Filberts, viz:—The thin shelled, Dutch, Spanish, English and American. Also, the rare and splendid Flowers of the Aristolochia Labioea.

A Peach was sent by Dr. J. Redman Coxe, the production of a tree in his garden, which had grown from a stone brought from the Island of Juan Fernandez, in the Pacific Ocean. The peach was of fine flavour, extremely juicy, and remarkable for the smallness of the stone.

Mr. Jacob S. Waln communicated four varieties of very superior Grapes, viz:

The White Muscat of Alexandria, large, and exceedingly high flavoured.
Muscat Rouge.
Black Damascus, sometimes called Black Hamburg,
And the Savignon.

These were all of them the productions of young vines, which bore this season for the first time. The bunches were large and finely formed, and the fruit extremely delicate and delicious to the taste.

Mr. Lawrence, of Penn Township, exhibited some of the finest description of Mogul or White Egg Plums.

A splendid Bouquet of fragrant and beautiful Flowers, was presented by Mr. Landreth.

FRUITS.

Linnæan Botanic Garden—Flushing,
New York, Sept. 13, 1830.

Gideon B. Smith, Esq.

Dear Sir,—I wish through the medium of your paper, to make known to all who are interested in the subject, that being engaged in the publication of two works, intended to comprise descriptions of every variety of fruit known in our country, I solicit from those possessing varieties of grapes, pears, apples, or any other fruits which they deem *new or peculiar,* to transmit me accurate descriptions of them, accompanied by suitable remarks on the growth of the vines, trees, &c.; which descriptions will be inserted in the works referred to, with due credit to the contributor. Seeds of any *peculiar* native grapes, would be very acceptable, and particularly of the *Vitis riparia,* or sweet scented grape of Ohio, the Tennessee varieties, and those of the other western and extreme southern states.

Very respectfully, Wm. Prince.

(From the Pittsburgh Statesman.)

ASPARAGUS.

This delicious vegetable is amongst the first in the spring, and can be retained until the last in the fall, (by a substitute.) Boil green cucumbers until tender—slice them lengthwise and serve them in the same manner as asparagus, and I will defy the best epicure, if blindfold, to decide between cucumbers and asparagus. 'Tis easily tried. An Epicure.

INTERNAL IMPROVEMENT.

BALTIMORE AND OHIO RAIL ROAD.

The *Baltimore American* gives the following account of a recent experiment on the Rail Road, with "*Cooper's Locomotive Engine:*"

The power of the engine is little if any over that of *one horse,* and it can therefore only be regarded as a working model. Immediately in front of and connected with it was a passenger carriage containing (including the attendants) twenty-four persons. The aggregate weight of carriages; persons, fuel, and water, as nearly as could be ascertained, was estimated to be from four to four and a half tons. Notwithstanding the great disproportion of the moving power to the load, the following highly gratifying results were obtained—the time being accurately noted by disinterested gentlemen of the first respectability:—

1st mile—performed in six minutes and fifty seconds, the steam in the outset not being fully raised.

2d mile—performed in five minutes; one minute was lost in altering the switch to pass from one track to the other.

3d mile—travelled in six minutes; two minutes lost in changing from one track to the other, the switch not being in the right position.

4th mile—was travelled in four minutes and thirty seconds.

5th mile—occupied five minutes and twenty-five seconds.

6th mile—travelled in six minutes; one minute was lost in changing to the other track.

7th mile—travelled in five minutes and thirty seconds. The engine stopped at the middle depot fifteen minutes, to receive a supply of water.

8th mile—performed in six minutes.

9th mile—performed in five minutes and forty-five seconds; the engine traversing an ascent of thirteen feet per mile, and encountering the numerous curves which abound in this part of the road.

10th mile—performed in seven minutes—the engine still ascending at the rate of thirteen feet per mile, and the road much curved.

11th mile—in seven minutes and thirty seconds—the same disadvantages of an ascending and curved line of road being still encountered.

12th mile—in seven minutes and thirty seconds—the ascent being here increased to eighteen feet per mile, and the line curved.

13th mile—in six minutes and thirty seconds; the same disadvantages of an ascending and curved line being encountered as in the preceding mile.

Making the aggregate *passage* of thirteen miles, under the circumstances detailed, in the space of one hour and fifteen minutes.

On the return of the Locomotive Engine, at six o'clock in the evening, the following results were realized—there being four additional passengers, or *thirty* in all, seated in the attached carriage.

1st mile, travelled in five minutes.
2d mile, " four minutes.
3d mile, " four minutes, six seconds.
4th mile, " four minutes.
5th mile, " four minutes, four seconds.
6th mile, " four minutes, five seconds.
(four minutes occupied in taking in a supply of water.)
7th mile, " five minutes.
8th mile, " three minutes, fifty seconds
9th mile, " four minutes, twenty-five seconds.
10th mile, " four minutes, ten seconds.
11th mile, " four minutes, forty seconds.
12th mile, " four minutes, fifty seconds.
13th mile, " four minutes, fifty seconds.

Making the entire passage of *thirteen miles* in *sixty-one minutes,* including the four minutes lost in taking in water at the middle depot. If this be deducted, it will give precisely fifty-seven minutes as, the time which the engine consumed in travelling the distance. It should also be borne in mind that these are experiments merely, and that several material improvements have already suggested themselves to the inventor. The result, under all the circumstances is highly satisfactory, and constitutes another triumph of the efforts of American genius.

A friend who was looking over our English paper, alighted on the following important paragraph; and conscious of the importance of such a discovery, if real, has said—The difficulty of propelling Canal boats with increased velocities arising from the increased ratios of the powers required, and also the injury done to the works themselves in the abrasion of their banks in consequence of boats moving rapidly on them, have been always acknowledged obstacles to this mode of public internal improvement.

The following experiments, if correctly stated, will be hailed by our Canal friends as most important information, and as leading to results as agreeable as they are unexpected.

SWIFT SAILING ON A CANAL.

The first voyage of the new passage boat *Swift,* from Glasgow to Edinburgh, and back again.—The *Swift* is sixty feet long, and eight feet six inches broad, twin built, and is fitted to carry from fifty to sixty passengers. On Wednesday the 7th July, she started from Port Dundas at sixteen minutes past nine in the morning, having on board thirty-three passengers (all men) with their luggage. Proceeding through the Forth and Clyde Canal and Union Canal, she reached Edinburgh, at twenty-nine minutes past four in the afternoon.

She thus made a voyage of fifty-six miles and a half, in the space of seven hours and fourteen minutes. In the course of this voyage she passed through fifteen locks, eighteen drawbridges, a tunnel seven hundred and fifty yards long, and over three long narrow aqueduct bridges, and under sixty common bridges, which carry roads over the Union Canal. Her average rate of speed during the voyage, was nearly eight miles per hour, including every stoppage. On the following day, viz. Thursday, the 8th of July, the *Swift* started from Edinburgh twenty-two minutes past nine in the morning, and returning by the same route with thirty-three passengers (all men) and luggage, she reached Glasgow precisely at four o'clock in the afternoon, that is, in six hours and thirty-eight minutes, being thus at the rate of nearly nine miles per hour. On both days the weather was most unfavourable from much rain, and a strong gale of wind directly in her face—the wind having been from the east on Wednesday, and from the west on Thursday. When free from the locks, tunnel, and other impediments, the speed at which she proceeded varied from six miles an hour, and the extraordinary results of the previous experiments made on the Paisley Canal, and Forth and Clyde Canal, were again completely verified and ascertained, during her progress through one hundred and thirteen miles of canal navigation. For it appeared that when she moved through the water at the rate of six or seven miles per hour, there was a great swell or wave constantly in her front, and she was followed by a strong surge or wave, bearing against the bank of the Canal. At these times the hauling rope was tight, and the horses appeared to be distressed. But as the speed was increased, the wave or swelling of water in her front sunk down; and when the speed came to be about nine miles per hour, the swell entirely disappeared, the water in her front became smooth and level, the hauling rope slackened, and the horses seemed easy, and little or no surge was to be seen on the banks behind the vessel.

[*Glasgow Chron.*

In the morning, think on what you are to do in the day, and at night think on what you have done.

LADIES' DEPARTMENT.

THE SILK WORM.

BY MRS. SARAH JANE HALE.

There is no form, upon our earth,
That bears the mighty Maker's seal,
But has some charm—to draw this forth,
We need but hearts to feel.

I saw a fair young girl—her face
Was sweet as dream of cherish'd friend—
Just at the age when childhood's grace
And maiden softness blend.

A silk-worm in her hand she laid,
Nor fear, nor yet disgust was stirred;
But gaily with her charge she play'd,
As 'twere a nestling bird.

She raised it to her dimple cheek,
And let it rest and revel there—
O, why for outward beauty seek!
Love makes its favourites fair.

That worm—I should have shrunk, in truth,
To feel the reptile o'er me move,
But loved by innocence and youth,
I deemed it worthy love.

Would we, I thought, the soul imbue,
In early life, with sympathies
For every harmless thing, and view
Such creatures formed to please;

And when with usefulness combined,
Give them our love and gentle care—
O, we might have a world as kind
As God has made it fair!

There is no form upon our earth,
That bears the mighty Maker's seal,
But has some charm—to call this forth,
We need but hearts to feel.

RECIPES.

TOE NAILS.

The toe nails often obtain a curvature by compression with tight shoes, which becomes extremely painful to the sufferer. The remedy recommended by Larry, the first surgeon of the age, is nearly the same that I adopted in my own case, thirty years ago, and have since recommended it in a good many cases, with perfect success.

When the nail turns into the toe, so as to produce pain, begin to scrape the top of the nail with sharp glass—reduce it almost to the flesh. As soon as possible put lint under the corners of the nail, always keeping the top thin; it will effect a *certain cure.* The Prince of Surgeons recommends, after scraping the nail very thin, to rub it with lunar caustic, (nitrate of silver.)

But this caustic medicine in clumsy hands might do mischief; perhaps a better course would be to omit its application. I knew a young lady who paid her doctor some fifty dollars for a complaint of this kind, when she might have been relieved without paying a cent. [*Troy Centinel.*

EXTRACT OF PENNYROYAL.

Farmers might easily save the flesh of horses and cows, and confer great kindness on their animals in preventing the usual annoyance of flies, by simply washing the parts with the extract of Pennyroyal. Flies will not alight a moment on the spot to which this has been applied. Every man who is compassionate to his beasts, ought to know this simple remedy, and every livery stable, and country inn, ought to have a supply at hand for travellers

THE FARMER.

BALTIMORE, FRIDAY, SEPT. 24, 1830.

CULTURE OF CLOVER.

TO THE EDITOR: *Nottoway Co., Va., Sept.* 16, 1830.

I am very much inclined to sow all my cultivated lands in clover, and as I have to purchase all my seed for a beginning, and not wishing to run the risk of a loss by sowing at an improper time, or in an improper way—I would ask for information from some of your agricultural friends or correspondents as to the best time of seeding, and whether it would be safe to sow on lands in the spring, that had been, in the previous fall, sown down in wheat—which would leave the seed on the naked land, exposed. I should like to see the views and experience of some practical farmer on the above subject, published in your paper. I should also like to see some regular or weekly communication on the best method of improving worn-out land. The farmers in Virginia, or in that part of it in which I reside, seem now inclined to make great efforts to improve their lands; and your paper having given the first impulse upon the subject, I should like to see its columns frequently occupied with plans or methods of raising manures and improving lands.

In haste, I. H. K.

Our correspondent will find an excellent article on improving worn-out and waste lands, in the present number, and we join him in soliciting communications on the subject, from practical farmers.

As to our correspondent's inquiries relative to the best time for sowing clover, we take the liberty of referring him to the practice in Dutchess county, New York—a district of country as celebrated for its judicious agriculture, as any in the Union. In a communication to the Board of Agriculture of the state of New York, Shadrack Ricketson, of Dutchess county, made the following remarks on the cultivation of clover:—

"It is a fact which may, I think, be universally admitted, that whatever induces a sward on land, enriches and improves it; which it is well known grass does, especially when aided with gypsum or a coat of manure: so that I consider the sowing of grass seeds as the easiest, cheapest, and most profitable way of improving our exhausted soils. That bringing a sward on land meliorates it, is proved not only by the increase of grass which it yields, but by the certainty of such land producing a good crop of grain afterwards, if the sod is well rotten. Indeed, turf is used for manure in some parts, particularly on Long Island.

"I shall not enumerate all the different kinds of grass seeds which may be used for the purpose; but shall confine myself mostly to such as are in common use in this country, and in which I have had the greatest experience. These are, red clover and timothy, which I shall proceed to consider in that order.

"1. *Red Clover*. This is generally preferred, and most commonly sown in this part of the country, it being one of our most useful grasses, and peculiarly adapted for upland dry soils, where wheat thrives well.

"It is not my intention to describe the method of cultivating those grasses, so much as to recommend and point out the advantages resulting therefrom, in furnishing a plentiful supply of pasture and hay, and in improving lands. I shall, therefore, avoid describing the process of sowing and culture, except in a few particulars which I think are not sufficiently attended to, or wherein my opinion may differ from others, and for which I apprehend I have good reason for so doing.

"The most common time for sowing grass seeds in this county, is in the last winter or first spring month, on a light snow; which frequently does pretty well; but at other times it comes up very thinly and unequally, owing to the difficulty of getting root, and to its being washed away with heavy rains. For which reason, I prefer to sow it with the grain, after the first harrowing and before the second, or after the latter, and harrowing it again with a bush; in which way it may be scattered very evenly, and will be well covered, and by being more deeply rooted, I think it bears both the droughts and the winters of our climate better. This method is not very commonly practised, though generally admitted when the seed is sown in the spring with barley or oats. But an objection has been made to it when sown in the autumn with winter grain, on account of its being killed with frost; which I admit to be not without its validity. But I believe the practical farmer's experience will induce him to prefer the method I have recommended.

"The general proportion of seed is about four or five pounds to the acre; but I think it may advantageously be sown much thicker, even to double that quantity, when it will not only yield more grass, but withstand the drought better, grow less woody, and not fall down so much; the last of which is no little inconvenience when it is mown.

"Clover fields should not be pastured early in the spring, before the lateral stalks sprout; nor be trodden with cattle, nor be rooted with swine, whilst they are wet, or contain frost. Although it injures clover to feed it very young, yet, considerable may be lost by suffering it to grow too rank before it is depastured, when creatures generally prefer and eat the shortest spots, and the tallest go to seed or die, and do not sprout again quickly.

"Many prefer mixing timothy seed with clover; which, when designed for hay, I do not approve of, for reasons to be given hereafter; but for pasture I think well of it, as it is likely to prevent the bad effects of clover's killing horned cattle, with which all are acquainted; and to obviate which, they should not be turned in first when the grass is wet, or when they are very hungry, but rather suffered to remain in all night.

"When the land is moist, or subject to be thrown with frost, and when it is wished to keep it long in grass, timothy may be advantageously mixed with clover, or preferred alone.

"Much of the goodness of clover hay depends on the proper season of cutting it, and method of curing it; both of which being now so generally known, I need not describe. Neither shall I enumerate all the different kinds of manure which promote its growth, further than to say, that gypsum or plaster does in a surprising degree, and exceeds them all, and is perhaps at present the cheapest."

It seems to be agreed on all hands, that the corn crop will be short at least one half, throughout the middle, southern, and western states; and as corn is the staff of life to stock in those parts of the country, a substitute must be sought for. There are many ways by which a good farmer may obviate the evils of a scarcity of corn. He should feed no whole grain of any kind, but let what corn he does feed to stock, be ground, *cob and all*, if you please, and mixed with cut straw, for horses; and with potatoes and other roots, and boiled, for cows and hogs. It is good economy to grind oats for horses, by which at least a third will be saved. Some farmers never thresh their oats, but cut them up with the straw, and thus feed them to horses. This is making the least they possibly can of the thing. The oats should always be threshed, and in times of scarcity, ground and mixed with the straw, which should be cut fine; and thus the most will be made of it. During the inclement season, cattle should be comfortably housed, and well curried; for it is a fact, that it requires much less food to keep them thus, than when exposed to the peltings of the storm, and allowed to shiver night after night in the sleet and cold rain of a middle states and southern climate.

At this time, a good *Straw Cutter* is an invaluable assistant to the farmer in husbanding his resources, and should be obtained. There are many kinds, from the old fashioned one, with which by hard work you can cut a bushel or two an hour, and which costs 5 to 10 dollars, to those made by Eastman, and Sinclair & Moore, by the use of which there is an immense saving of labour. These latter cost $50, extra sizes higher. By timely attention to these hints, and pushing the system of economy into all the departments of the farm yard and kitchen, as well as the corn crib, we have no doubt that your cattle will chew their cud with composure during the winter, and, together with your horses, come out in the Spring with sleek hides and heavy haunches.

LARGE MELONS.—G. C. Tallmadge, Esq. of Dutchess county, N. Y. a few days since, presented a water-melon to D. Kenny & Co. of New-York, which weighed 43 lbs. and measured 48 inches in circumference. He had others of 25 to 36 pounds. G. G. Nowland of Flushing, also presented one to the same gentlemen, which weighed 48 lbs.

THE COTTON CROP.—A merchant at Macon, Georgia, in a letter to a gentleman in Savannah, says:—"The quantity of cotton to be received in this place will not exceed 40,000 bales, and estimated by many at 35,000 bales instead of 70,000 as was anticipated. In several of the neighboring counties the crops are much shorter than was expected owing to the drought.

LATEST FOREIGN NEWS.

We have intelligence from France to the 11th August. The chambers had declared the throne vacant, offered the crown to the Duke of Orleans, who accepted it and had taken the oath. His title is Philip I. *King of the French*. The chambers had made many important alterations in the charter, such as the abolition of the Catholic religion as that of the state, of the censorship of the press forever, the nullification of the nominations and creation of peers during the late reign, (by which ninety-three members of the house of peers lose their seats;) the King can never suspend the operation of the laws; the sessions of the house of peers to be public, etc. The ex-ministers Peyronnet and Chantelouze, had been arrested at Tours, and were in prison; Polignac is said to have arrived in London, and to have been denied an audience by the Duke of Wellington. The ex-king was expected at Cherbourg on the 11th August, whence he was to embark, as is generally supposed, and most likely, for Naples, where he will probably meet the Dey of Algiers—a pair of noble brothers.

A letter from Havre of August 9, says—"You will remark by the enclosed review, that business has been almost completely at a stand since we last addressed you. We have however much more favorable accounts from Paris, where the Duke of Orleans has been proclaimed King, under the title of Philip VII. and we trust commercial transactions will ere long resume their activity, the changes adopted for our future government being likely to have the approbation of a great majority of the nation. Some sales of cotton have already been made to-day, at prices well supported, and which indicate that the stock of our spinners is nearly exhausted.

ENGLISH MARKETS.

Extract of a letter from Liverpool, August 11.

"The weather continues tolerably good, and there is quite a panic in our grain market—free wheats are down 6d a 8d. oats 6d. flour 1s a 2s. per bl. Flour *in bond* is still worth about 32s. the duty being expected now to come down to the lowest scale. Free flour may be bought at 36s. per bl.—Harvest has commenced pretty generally in the south and southeast of England, and the London markets on the 9th fell fully 3s. per quarter. There is still but little doing in cotton, but the market keeps firm, and we expect to see a more lively demand soon. No change in other articles."

GENERAL AGRICULTURAL AGENCY,

AND

SEED STORE.

The Subscriber, deeply impressed with the belief that a general agency, for the purchase and sale of every description of Agricultural implements, improved breeds of stock, fruit trees, seeds, plants, &c. would not only be a great convenience to the public, but profitable to himself, has determined to open one at the office of the American Farmer. His intimate acquaintance with all the breeders of stock, implement, and horticultural establishments, as well as the central situation of Baltimore, gives him important advantages for an agency of this kind.

As general agent, he will receive orders for, and purchase all kinds of agricultural implements, machinery, fruit trees, vines and plants, and all kinds of seed, improved breeds of cattle, sheep, and other stock; and indeed any thing that may be wanted by agriculturists; and will attend personally to their inspection, that the genuine article may be certainly obtained. When dependence is placed upon his judgment, no machine will be purchased but such as he shall have seen to operate as described. Fruit trees, shrubbery, and green house plants, will be obtained at the establishment named by the person ordering; and if no establishment be named, the subscriber will obtain them from such as he shall have most confidence in—in the latter case he will be responsible for the genuineness of the articles, in the former, the risk will remain with the purchaser.

Commissions on purchases, on sums of $10, or less, 10 per cent. between $10 and $20, 9 per cent. $20 and $30, 8 per cent. $30 and $40, 7 per cent. $40 and $50, 6 per cent, $50, and upwards 5 per cent.

☞ Gentlemen having improved stock for sale, are invited to furnish him with lists, containing descriptions, pedigrees, and prices.

In the Seed Store, at the office of the Farmer, every description of garden seeds will be kept for sale, and the subscriber will particularly attend to the collection of new and rare varieties. Besides a general assortment of garden seeds, he has now for sale the following rare seeds, mostly raised by himself:—

Swiss Chard, (a new and excellent vegetable;) Chick Pea, (*cicer arietinum*, a delicious new Pea, used green or dry, and not subject to the bug,) Bishop's Dwarf Prolific Pea, (well described by its title—requires no sticks,) Rhubarb, (for tarts, and equal to gooseberries, with the advantage of coming into use very early in the spring,) Purple Egg Plants, Seakale, (an excellent early vegetable;) Genuine Cuba Tobacco Seed, fresh from Havanna; Cow Cabbage, sometimes called Perennial Cabbage and Tree Cabbage. These seeds are put up in papers generally at 25 cents each, and can be sent by mail. Directions for their cultivation will be given when required.

The subscriber has also for sale 4500 Genuine White Mulberry Trees, of his own raising, which he will sell at from two to eight dollars a hundred, according to age and size, warranting their genuineness and growth.

All letters on the business of this establishment must come free of postage.

☞ It may be well to observe here, that this establishment will in no way interfere with seeds left for gratuitous distribution—all such will be freely distributed as heretofore. GIDEON B. SMITH.

BLOODED STOCK FOR SALE.

No. 1. B. m. foaled in 1816, by Gracchus, out of the imported mare Lady Bunbury, she by Trumpator, out of Theopha, by Highflyer; Plaything by Matchem; Vixen, by Regulus, &c. (see Stud Book, vol. 1st,) in foal to Contention.

No. 2. Ch. c. foaled in 1828, by Ratler, out of No. 1, very large and handsome.

No. 3. B. h. foaled in 1825, by Gracchus, out of Matilda, she by Sir Archy, out of *Noli me tangere*, she by Top Gallant, out of Castianira, the dam of Sir Archy; very large and fine looking horse; possessing more Sir Archy blood than any horse in this country.

If not previously disposed of, will be offered publickly on the Washington course, immediately after the great sweepstakes in October next.

GEO. H. BURWELL,
Millwood, Frederick Co. Va.

FRUIT TREES,

Grape Vines, Green House Plants, &c.

LINNÆAN BOTANIC GARDEN and NURSERIES, near New-York: Wm. Prince, Proprietor. The Fruit and Ornamental Trees comprised in this immense collection, are offered for sale at reduced prices. The quality of the trees surpasses any former period. Among the Fruits, are Peaches, Apricots and Nectarines, on Plum Stocks: and upwards of fifty varieties of Strawberries, at reduced prices.

100,000 GRAPE VINES, of the best varieties, for Wine and Table Grapes, such as those of Burgundy, Champagne, the Rhine, and Tokay, for Wine; Golden Chasselas, &c. for the table, at reduced rates, by the 100 or 1000.

The Green House collection comprises every variety of plant that can be desired, in the best possible condition: among which, are the following rare Plants—Cheirostemon Platanoides, Astrapea Wallichi; Banksia, seven species; seven Brixia Spinosa, Madagascariensis and Crysophylla, Nerium Tinctorium, Plumeria Rubra, Ficus Vestita Macrophylla, Aquatica, &c.; Ardisia Littoralis, Solanacea, Colorata, &c.; Hibiscus Rosa Sinensis, of six varieties; Protea, fourteen fine species; yellow tea scented and yellow Banksian Roses, new white tea scented Rose, Amaryllis Tortulliflora, Veniflora, Venosa, Superba, Punctata, Attenuata, Gigantea, Stellaris, Coccinea, Fulgida, Princeps, and about sixty other varieties, the Cammellia Japonica or Japan Rose, about fifty varieties, including all the new and estimable ones from Chandler and Buckingham's (London) collection. The prices have been greatly reduced.

As the most proper season for transplanting Fruit Trees, Shrubbery, Strawberry Plants, &c. is near at hand, persons intending to obtain them are requested to hand in their orders to

GIDEON B. SMITH, Agent,
Office of the American Farmer.

TO THE PUBLIC.

The Proprietors of the LINNÆAN BOTANIC GARDEN and NURSERIES, near New-York, have increased the establishment in all its departments, and have an immense stock of Trees, Flowering Shrubs and Plants, comprising the most interesting and valuable productions of the globe, and being fully sensible that the establishment of Nurseries in every part of our country would be a great National advantage, they now offer all the facilities in their power to advance that object. They will furnish all articles required in quantities for Nurseries, at a liberal discount from the usual prices, and where secure, a credit will be allowed to accord with the convenience of the purchaser.

All communications and orders will meet the usual attention and despatch. WM. PRINCE & SONS.

Lin. Bot. Garden, New-York, Sept. 14.

PATENT STRAW CUTTERS and PLOUGHS.

The Subscriber has on hand, a good supply of his Patent Cylindrical Staw Cutters, which are adapted to the cutting of all kinds of long forage, straight or tangled, and for their simplicity, durability and efficiency, he believes they have never been surpassed, he has sold between three and four hundred of them, and he believes they have given universal satisfaction.

He also keeps himself constantly supplied with Gideon Davis's highly improved Ploughs, in all their variety; and the castings to supply the place of those worn out, together with other implements of husbandry, as heretofore.

Likewise on hand, Herds and Orchard grass Seeds, and a general assortment of the Messrs. Landreth's Garden seeds.

He is also agent for the Messrs. Robbins's improved *Corn Planter* for planting or sowing all kinds of seeds; can furnish the machines or dispose of the patent right.

Orders received for Fruit and Ornamental Trees, Bulbous roots, Flowers, &c. &c.

JONATHAN S. EASTMAN,
West Pratt-street, between Hanover & Charles.

ALMANAC.

1830. Sept.—Oct.	Sun. Rises.		Sun. Sets.		Length of days.		Moon. sets.	
	H.	M.	H.	M.	H.	M.	H.	M.
Saturday,.... 25	6	2	5	58	11	56	11	20
Sunday,...... 26	6	4	5	56	11	52	morn.	
Monday,..... 27	6	5	5	55	11	50	0	15
Tuesday,.... 28	6	6	5	54	11	48	1	10
Wednesday, 29	6	8	5	52	11	44	2	10
Thursday,... 30	6	9	5	51	11	42	3	20
Friday,....... 1	6	11	5	49	11	38	4	10

BALTIMORE PRICES CURRENT.

Baltimore Market.—There is a trifling decline in flour and wheat, since our last. Howard street flour was selling yesterday from wagons, at $5.25. Wheat comes in quite freely, and our quotations exhibit average rates. We saw several parcels of superior white wheat, which had been sold as low as 90 a 95 cents, in consequence of a slight admixture of garlic—they would readily have commanded a dollar, had they been free from this miserable pest. In corn, rye and oats there is no change. Beef continues plentiful and without change of price—there is no first rate in market, and drovers discourage the hope of any this season.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 420 hhds. Maryland, 19 hhds. Ohio; 10 hhds. Kentucky; and 3 hhds. Pennsylvania, total 452 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard-street 5.37½ *a* ———city mills, 5.00 *a* 5.12½--Susquehanna, ——; Corn Meal, bbl. 2.25—Grain; red wheat, .90 a .93;——white do. 95 *a* 1.00—common red ——Corn, white, .55 *a* .56—yellow .56 *a* .57--Rye, .50 *a* .52——Oats, .30 *a* ——Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 6.00 *a* 6.50 Timothy, 2.00 *a* 2.50—Orchard Grass, 1.25 *a* 1.50——Herd's, -— *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, -Flaxseed, 1.12½--Cotton, Va. 9½ *a* 10½--Lou. 11½ *a* 13—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .6½ *a* .10½-Upland 10 *a* 12-Whiskey, hhds. 1st p. .31 *a* —; in bbls 32 *a* 33—Wool, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $210 *a* —-; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* . 4.50 Mackerel, No. 1, 6.00, *a* 6.25 No. 2, 5.50 *a* 5.75—No. 3, 3.75 *a* 3.87½-Bacon, hams, Balt. cured 10c.-Feathers, 34 *a* 35---Plaster Paris, cargo price per ton, 4.25 *a* -—ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 3.75 *a* 4.50—Pine Wood, by the vessel load, 1.75. Oak, 2.75 *a* 3.00—Hickory, $4.50.

Agents for the American Farmer.

The following persons are authorised to act as Agents for the American Farmer in their several places of residence:

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AGRICULTURE.

[The following article is the continuation of one on the same subject, published in No. 17, vol. 12, of the Farmer.]

UPON THE ADVANTAGES OF SHALLOW SOWING.

By Mr. Freiherrn von Voght, of Flotbck.

I may, therefore, state my present opinion with regard to the object of the here proposed mode, viz. that the seeds may lie at the most equal possible distances, be as little disturbed as possible by the harrow in their situation, and yet not lie above an inch deep, when they will certainly come to perfection; and this as concerns the winter sowing, without any exception. In the spring sowing it might, with regard to the light dry lands, be limited to this, that the corn should, indeed, be sown after the small harrow, wherewith it comes to lie in more even and at suitable distances; but then if one fears the waste which may arise in consequence of the possible drying up of the seeds remaining uncovered, it should be ploughed under as shallowly and closely as possible, and frequently crossed with the sharpest harrow. I always sow oats shallow in loamy soils, and do not mind the loss of a few uncovered seeds, for which the quicker growth and the stronger tillering of the majority of the plants richly repays. Hereupon I must also observe, that the good effect is only to be looked for when the surface has been harrowed extremely fine to the depth of an inch.

In all the foregoing experiments the seed which succeeds best is that which lies one inch under the surface of well broken earth. The higher it is kept the better, but it must be protected from the sun's rays by a covering, however thin it be. As a voucher for the correctness of the deductions to be drawn from my observations, I may be permitted to quote, word for word, from the first volume, p. 283, of Burger's Instruction Book, what this justly renowned person says upon the matter, since this useful book may not be in the hands of all my readers. "The more lightly the seeds lie under the soil, the more powerfully does the warmth act upon them, and so much the more freely do they enjoy the air; and since they need but a small portion of moisture, which is either previously in the soil, or may be expected, it is clear that when equal in other respects, the preference is due to the lightly, rather than to the more deeply lying seed. The lightly lying seed, with a fair degree of moisture, comes quickly up out of the earth; besides, a quickly appearing seed has essential advantages over one more tardy; for it has more time to take root ere it is forced by the summer's heat to sprout forth. Shallower sowing requires fewer seeds, because a smaller number perishes; besides, the plants are healthier, since the shoots mounting from the deep soil often exhaust their whole strength thereby, and then either directly die off, or only present an insignificant root and a weakly plant; for nature allows only a certain quantum of nourishment to the seed as is needful to expand the germination of its leaf and its first root. But if all the nourishment is consumed by the stalk whilst under ground, nothing is left for the leaf and the root, and the plant withers, or grows sickly. The *root* ever forms itself only next the surface of the earth; and when we place the seed deep, these first push their shoots to the surface, and form other roots in a near point of contact with the air. It is never found that the first roots raise themselves *from below upwards;* on the contrary, the reverse takes place. In support of this assertion we may here avail ourselves of the interesting experiment of Mr. Ugazzy, in *Andrè's Oekonom-Neuigkeiten,* July, 1817, page 76. Between the 5th and 15th of June, 1817, he examined the best fields, where the seed had been ploughed under, according to the custom of the country, five several kinds of corn, how deep the roots stood in the earth, and what influence the various depths had upon the appearance of the plants. He has expressed his subsequent experience in the following tables:—

Kinds of Grain.	Depth of the roots in the soil.					The average produce of stalks.			
	1 inch.	1½ inch.	2 inches.	2½ inches	Total.	1st class.	2d class.	3d class.	4th class.
Winter Rye,	742	221	32	5	1000	2 3-5	1 2-7	1	1
Wheat,	765	215	17	"	"	3 4-7	2 1-8	1	"
Summer Wheat,	645	304	42	9	"	4 1-6	2 3-5	1 1-11	1
Barley,	631	317	41	11	"	3 2-5	1 3-4	1	1
Oats,	672	241	64	23	"	1 1-2	1	1	1

"By this it appears that the roots of from two-thirds to three-fourths of all the corn planted were only one inch under ground, and that these were the very plants which had put forth most ears; one-fourth of the plants had their roots an inch and a half deep, and had only about half as many stalks as the first: the roots at two inches depth showed but four in a hundred, and those at two and a half but nine in a thousand; yet these latter had only put forth a single ear; whilst the former, in the rye and wheat, produced from two and one-fifth to four and one-sixth. Hence it is clear that the lightly lying seed, if it be sufficiently covered with earth for the corn to germinate, and the germ protected from the immediate effects of the air (or rather from the sun-beams,) has the advantage over the more deeply lying seed, since the shallower seed comes out more quickly, and finally exhibits a more powerful growth, than the deeper lying one, which either never brings its germ to the surface at all, or only produces a weakly plant."

In addition to quoting such weighty testimonies, I may be permitted to show that the observations of all modern physiologists not only perfectly accord with mine, but also explain and confirm them. All agree that with the access of warmth and moisture to the farina of the fructified corn there proceeds a fermentation, which dissolving the sweet farinaceous part, forms a carbon that would dissolve the embryo, if the germinating power in the shoot were not more potent than the chemical, and were it not able to free itself from it through the accession of oxygen from the atmosphere. The sorts of corn belong to the fourth and last division of the *monocotyledones embryones,* which have a *root-knot* and *farina.* The seed of the gramina not only contains *farina,* but the germ is also enfolded in peculiar cellular sheaths,* which open a passage upwards through the first root leaves, and swelling below, thence push forth the slender fibrous roots. The substance of the *farina* is conducted into the divisions of the *principal knot,* and become suitable nourishing matter. The fleshy farinaceous *cotyledon* has no *absorbing vessels,* and must from its own *mucilage,* which becomes a nourishing *emulsion,* get the nourishment by means whereof the embryo lives. The *embryo* contains the incipient plant and little root: these are separated by the *principal knot,* which makes the partition between the ascending and descending motion; out of it passages pass into the *cotyledons;* the infant plant begins to breathe through the opening of the outer skin; then the little juice-pipes return again into the *knot,* and thence into the plant itself. This component consists of a granulous central mass of firm structure, from which the passages arise. This middle point of the embryo was named by Agricola *glandulapinealis,* by Fishcher and Treviranus *centrum vegetationis,* out of which the life and all growth proceed. This little cylindrical body, called in French *collet,* which continues to live in perennial plants when leaves and roots die off—by Turpin termed *ligne mediane,* and by Le Mark *the life-knot—is actually the seat of the germinating power,* and is found in all freely growing plants near the surface of the soil. From it arises with inconceivable power the growth and expansion of the whole plant, and in graminous herbs can be carried up by an ascending cone (*plumula ascendens,*) and a descending one (*plumula descendens.*) Lastly, this collet, which is the centre point of activity, and the source of existence, first forms the *knot* just below the surface, from which, when the growth of the plant is vigorous and unstinted, new small *knots* diverge, and from them the additional *crown* roots shoot forth contemporaneously, and thence the leaves and stalks increase. But in order that all this should happen, it is requisite that the seed-corn be so deposited that it want for nothing which is necessary to its expansion. For that purpose are required atmospheric air, moisture, loose earth, warmth, and to a certain extent light and manure.

Atmospheric Air.—The *embryo* is, as we have seen, surrounded with carbon, which, however necessary it becomes to the plant in its farther growth, would be fatal to the germ, if it were not by the cooperation of the air freed therefrom through the oxygen of the atmosphere. *Saussure* the younger made, in 1804, the important discovery, that the atmospheric oxygen gas, which is attracted by the germ in its expansion, does not remain in the plant, but only serves for the formation of the carbonic acid gas, which is delivered in the germination. Already the oily farinaceous saccharine matter ferments in the *seed covering,* and generates oxygen. This becomes absorbed, and exhales carbonic acid gas, but for this fermentation atmospheric air is also necessary. This oxygen is so advantageous to the germination, that *Humbold,* with highly acidulated muriatic acid, brought old seeds to germinate in six hours. Although too much of it is fatal, yet it is even on that account needful to the germination, since it frees the germ from the carbon. No germ comes forward in the carbon. Every agriculturist must recollect what his sown fields have suffered if the soil, shortly after the sowing, becomes muddy through a heavy rain; how requisite a sharp harrowing over would be. This the best farmers hold to be good for their wheat, in order to facilitate the access of the atmospheric air.

Moisture dissolves mechanically substances dissolvable in water, but the water is decomposed through the organization of the plant, whose oxygen binds itself with the carbon of the seed, and carries it away. The hydrogen then remains, being left for the nourishment of the germ. Thence is it advantageous, when the beneficial moisture of dew is not withheld from the seed. That the loose finely pulverized earth is profitable as regards the more easily penetrating of the little roots, that it helps the admission of air, warmth and moisture, it is unnecessary for me farther to dwell upon. Warmth depends, indeed, principally upon the nature of the soil and the influence of the weather. Every body knows how essential it is to the progress of vegetation. The seed must at least be placed in that situation, in moist soils, where it may not be deprived of the genial influence of sunshine. Light, moreover, is also requisite for binding the carbon during the first unfolding of the plant, by attracting the hydrogen and expelling the oxygen united with light; although it is likewise true that the oxygen which is so necessary an incentive for the germ, may through the excess of sunshine be developed too soon.

Manure in the soil, as assisting the fermentation, delivering also warmth and oxygen, and attracting moisture, presents nearly all that is requisite for the powerful expansion of the germ. A tolerably rich soil, as every agriculturist knows from his experience, is extremely serviceable to the germinating power. It is very clear that all these advantages, whereof experience taught me the utility, which also appeared evident to other good husbandmen, are all proved and explained here by the unanimous opinion of our best physiologists.

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* These sheaths are those which in the deep lying corn are forced to lengthen themselves from one inch and a half to two inches, and which exhaust the whole nourishment that the imperfectly fermenting *farina* can give to the germ, which moreover is deprived of the nourishment from the *seed-coverings* (cotyledons,) which can hardly work unless exposed to atmospheric air.

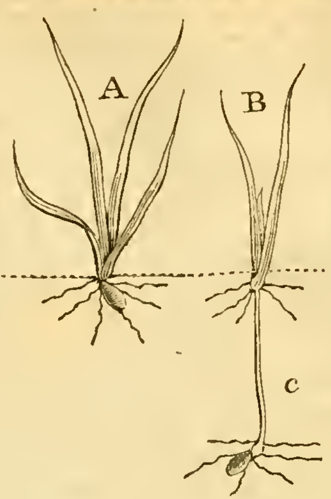
I have, therefore. nothing more to state, unless to assure my readers that in all the experiments made for the purpose, I have gone by no theory, but wholly unprejudiced have observed the course of nature, bearing in my mind that saying of Lord Bacon of Verulam, of which an agriculturist proceeding on principles similar to mine has so admirably availed himself —"*Not to suppose or imagine any thing, but to find out how nature manages what she abides.*"

F. V.

This paper treats of a circumstance respecting the due depth at which seeds should be laid in the soil, and is really of more importance than many farmers might be led to imagine. The author is a gentleman of much practical knowledge and experience, and by every account a most successful agriculturist. As his descriptions may not be so satisfactory through the medium of a translation, we deem it necessary to add a few comments to his essay, which, when accompanied by copies of his drawings, will make the whole sufficiently intelligible to our readers.

Air, heat and moisture are indispensably necessary to the vegetation of seeds. It is the union of these elements which produces that chemical effect on the components of the vegetable ova, as described by the Baron, and which causes them to swell, burst their shells and start into life. If they be placed by accident or design at such a depth in the earth as to be out of the influence of air, and though they may be surrounded by the requisite degrees of heat and moisture, they will nevertheless remain dormant. We have many instances of the truth of this in every day practice, and of the imperishable properties of some kinds of seed when excluded from the influence of the air. If seeds are dropped on the bare surface of the ground, they will remain uninjured and unaltered so long as the air is perfectly dry; but in moist air germination commences, and the point of the root will quickly be protruded and find its way into the soil. This is the ordinary process of nature; but experience has taught us, that though nature distributes grain and other seeds generally on the spot where produced, yet there is a proper depth at which all seeds should be deposited, and which is specially suitable. This depth is obviously that which, while it yields the necessary degrees of heat, moisture and darkness, is yet within the requisite influence of air.

In the ordinary proceedings of farmers in the business of sowing, our implements more than any thing else regulate the depth at which we lay in the seed. The drilling system, besides the equal distribution of the seed, is approved because seeds are laid in at an equal depth also; this last circumstance being regarded as one of the principal advantages of the machine. Now our author has endeavoured to show that seeds may be deposited too deep even by the drill; and in all cases when seed is sown before the harrow, much of it will be laid deeper than it should be. Of this there can be no doubt. Every one acquainted with sowing must allow that seed may be buried; and every body acquainted with the structure of culmiferous (straw-bearing) plants, and their manner of growth, must be convinced by what the Baron has shown, that if seeds are but just covered, so as to be sufficiently shaded from the sun's rays, it is enough. As proof of this our author quotes several eminent authorities, who argue from the physical structure of the plants, as well as from the qualities contained in the seed which submit to the chemical action of the elements in the act of germination, that deep sowing is highly detrimental, and opposed to the provisions of nature.



Explanatory of these assertions, the Baron has appended to his paper figures of five different kinds of corn in five different states of growth, caused by the different depths at which they had been deposited in the earth. Two of these are given in the annexed cut. The dotted line is the surface. Figure A represents a healthy plant of wheat from a seed laid in at the proper depth, viz. one inch beneath the surface. Figure B shows the growth of a plant from a seed which has been laid in too deep. This last, it will be observed, vegetated, although two or three inches under the surface—threw out its seminal or first roots, and sent up its first shoot, bearing two leaves, into the air; but as the first joint of the culm rises therewith, and remains near the surface, it also throws out roots, and entirely supersedes those that were first produced from the grain. Now as this is only a provision of nature to accommodate herself to circumstances of accidental position, many cultivators have been of opinion that seeds placed at irregular depths makes but little or no difference to the ultimate strength of the plant, or to the yield of crop. To this the Baron is decidedly averse, affirming that this unnecessary waste of vegetable power is both hurtful and unnatural. We think, and we may venture to say we know, he is right; for saying nothing of the needless waste of vigour, the young plant must be more liable to accidents from changes of weather, slugs and insects, during the ascent of the first shoot, and before the principal roots are formed, than if it started from its natural position at once.

The structure of a wheat, or any other straw-bearing or jointed plant, is simply this. From the bursting seed fibrous roots are first produced from the base or collet of the stem. The principal stem is composed of a jointed hollow column, very abbreviated when first protruded from the seed, but elongated to its full length in course of the summer. The elongation is produced by the gradual extension of the spaces between the joints: that one situated between the collet and the first joint is, if sown deep, unnaturally extended, and is that designated by the Baron, "*a small whitish pipe;*" see figure B, at *c*. The first joint being elevated to the proper place for the production of roots, then throws out a new and vigorous set; for every joint is furnished with rudiments of both roots and shoots, and it is from the first, second, and sometimes the third, that the principal roots and all the secondary shoots are produced, in number and strength, according to the richness of soil and favourableness of season—the first-formed roots and "whitish pipe" from the too deeply sown seeds quickly dying away. We may here observe that we have often noticed that the first-formed roots of the deep lying seeds support the young plant throughout the winter, and that the new set of fibres, which mature the ear, are not formed till the spring.

To guard against ever deep sowing, therefore, the Baron advises to sow nothing before the harrow, and moreover that great pains be taken to pulverize the surface with fine harrows before the seed is sown, lest the corn should rise in rows, which in broadcast husbandry he condemns. Very different this from the custom of sowing wheat in this country, where the dexterity of the ploughman is often judged of by the regular exactness in which the ranks of corn appear on first coming up. This idea of the Baron's though it be condemnatory of the drilling system, (unless the machine be made to deliver very thinly,) is, notwithstanding, very reasonable; the numbers of inferior ears, and the inequality of our samples of wheat, is mainly owing to the plants being too much crowded together in the dips between the furrows.

Admitting that the principle of shallow sowing and equal distribution on a well harrowed surface is in general right, still, as we have in this country very often a showery seed-time, it would be running a great risk on a clayey soil to harrow it down so finely as Baron Voght advises; and if a naturally loose and dry one, such procedure would probably bring up such a crop of seed-weeds as would greatly injure, if not destroy the crop. But on early sowed fallows—all kinds of lent-corn and small seeds—we think, from what we know of the nature of seeds generally, as well as from this writer's opinions, that the farmer cannot do wrong in following the Flotbek manner of sowing broad-cast. [*Ed. Br. F. Mag.*

(From the Winchester, (Va) Republican.)

AGRICULTURAL EDUCATION.

The subscriber, wishing to educate an only son under his own eye for the profession of agriculture, and to afford him at the same time all the instruction to be derived from a thorough knowledge of the English language, and finding the expense of an appropriate teacher and apparatus greater than an ordinary competency can afford, will be pleased to receive into his family one dozen boys from eight to ten years old, to form if possible a permanent class, which would probably in six or eight years derive the anticipated benefit from this mode of education. Should success attend the attempt, in due time another class of one dozen, with an additional teacher, would be annexed to the establishment, with every necessary apparatus to complete the education of youth, who may hereafter fill with honour any station in our republic, within the range of their natural abilities.

To enter into a detail of the studies comprehended under English teaching, and the minutia of instruction contemplated, would be too lengthy for an ordinary notice: suffice it to say, that a teacher will be employed whose reputation has been established in the Rensselaer school, (having first passed through the theory of college learning,) and is now made practical at that establishment. The discipline and economy of the justly celebrated Hofwyl school will be united with the most successful practices in similar establishments in our own country; and the anxious solicitude of a parent for the welfare of his own child, will be exerted to render equally advantageous his associates. His general views and plans of the subject, have received the decided approbation of some of our citizens most distinguished for their virtues and talents. The following brief testimony from one of the few remaining fathers of the land, (Col. J. Monroe,) is esteemed too valuable to be withheld. "I return you the papers which you have been so kind as to send me, containing your essay on the system of education which you propose to establish on your farm, connecting agriculture with the sciences, under your supervision. I consider the principles sound, and the view presented, as furnishing strong arguments in its support. There is nothing more certain than that, under a government in which distinct hereditary orders are prohibited, and the right of primogeniture and entail abolished, the effect of which is to produce by degrees, an equality of fortune, as well as of rights, in the mass of the people, that the success of the system must depend on the intelligence as well as virtue of the whole community. Every effort then to enlighten the whole community, merits encouragement and support. In that light I viewed your exertions, and am particularly gratified to behold them in the son of one of my oldest and best friends."

A fair experiment is now desirable to test its real utility under the circumstances of our peculiar situation. The most essential difference between the one anticipated, and other schools, will be the entire exclusion of the dead languages, and the substitution of agricultural labor, to be made an interesting amusement, as far as possible, through a judicious use of the selfish principle, in the place of such plays and amusements as it is feared too frequently excite the evil passions, and generate the incipient stages of vicious habits. But it is not proposed to exclude a due portion of free recreation, or the practice of the least exceptionable amusements which appear to be congenial with the nature of youth. Still it will be thought most advisable to appropriate as large a share of the students' time as can be spared from a routine of studies (amongst which will be the theory of husbandry,) to the practice of it, with all the implements appropriate to their age and circumstances. Their labours will be chiefly applied to a small but fertile spot of ground, greatly for their own benefit in the creation of individual agricultural libraries, as a stimulus and reward for their industry. If at any time it should be extended beyond this measure, it will be with no other view than to give them a practical knowledge of every necessary operation on a farm; so that a youth of 16 years of age, having commenced at that of 8, would have acquired more practical knowledge of farming operations, than most men at the age of 25; and in the stead of a partial acquaintance with several languages, would have the complete mastery of one, with a store of such information as will be considered the best foundation to make an agreeable man and useful citizen. A thorough acquaintance with all history is now to be obtained through the English language, and the whole philosophy of man and of creation, as far as has been discovered by him.

The chief importance of education in our country, is to enable its citizens to gain an honest livelihood in the easiest possible manner, with the aid of human learning, and to govern themselves well, through a temporary delegated authority: therefore, the sooner a good education is bestowed, the better, and the earlier our youth acquire a knowledge of our own laws and institutions, the greater will be their usefulness.

Has not the time yet arrived when a gradual change in our plans of education will be found expedient to meet and promote other changes, which, it is hoped are advancing with certain, if not rapid progress. With respect to the moral discipline of a school, the high authority of holy writ must be our guide, since human nature is found to be the same in every age. The most material and effectual part of the government of man, is through a combination of love and fear of the God he worships. In like manner (it is humbly apprehended) should the affections of youth be directed towards their teachers, masters, or parents, until their reason, to be improved as early as possible, assures them that all they think or do, should be to the glory of their Maker. But until their minds are so enlarged, some kind of penalty, not here to be defined, should always follow a departure from known laws and rules, in proportion to their magnitude, consulting with care the differences in disposition, and applying remedies as mild as the nature of the case will admit.

Whatever may be the opinions or partiality here expressed in favour of any particular system of education, it is hoped none will be construed into a design of waging war against the study of the dead languages, or even of a desire to curtail their just merits in the compass of general literature. May not one friend be preferred to another, without intentional injury to the rest? And after all, must it not be conceded, that the great and important inquiry should be, what are the modes of education best suited to our special circumstances, in order best to prosper and perpetuate our republican institutions? Can the talents of the wise and the good be more nobly employed? Institutions of learning are too important, and in too great demand, whether public or private, to excite any other feeling than a general desire for their prosperity. Comparisons between this, that, and the other mode, may perhaps be unfortunate in their tendency, however well intended in their application, and may be prudently avoided; but can there be a doubt, that in their views and purposes, they may be amended and modelled with great advantage, to suit the varying interests of a rapidly extending population? and the practical effect of each individual institution must determine its character and merit.

Finally, as it regards the exclusion of the dead languages in schools where farmers and mechanics are to be reared, public opinion, after a fair and liberal discussion of the subject, must decide. Nor let a belief be entertained for a moment, that farmers and mechanics, &c. are to be offered an education less substantially and eminently valuable, whether as it regards their immediate profession or future prospects, in relation to the honors and advantages to be derived from public favours or duties. In due time an opportunity will be afforded both the friends and opponents of the proposed change to give the fullest exercise to their talents and acquirements in defending its utility, or denouncing its presumption. In the spring of 1831, this institution will be put in operation, if in the mean time it shall receive sufficient countenance The terms, including every expense, will not exceed $125 per year. Information on the subject may be had from the Rev. William Meade, who conducts a literary institution on the adjoining farm, or of the subscriber, living near the White Post, Frederick county, Va.

R. K. MEADE.

Lucky Hit Farm, Sept. 4, 1830.

HORTICULTURE.

(From the North American Sylva.)

OLIVE TREE.

Olea europæa. *O. foliis lanceolatis, integerrimis; racemis paniculatis.*

(Concluded from page 221.)

When the nurselings have arrived at a proper age, the next step is to transplant them to the Olive-yard. The task of preparing the ground for their reception should be begun immediately after the harvest. Holes or trenches, at least three feet in width, are dug and left mouldering till the close of winter, which is the season for transplanting the Olive. The stock and principal branches are lopped and the wounds are covered with clay. As much of the roots as possible should be preserved, with the earth adhering to them. When the trees are carried to a distance, which may be done with the precautions that are used for other fruit trees, they should be set during several hours in water before they are replaced in the ground. Mellow, fertile mould should be spread upon the bottom of the holes and thrown first upon the roots; among which the earth should be lightly forced, though it is not useful to render it compact nor to heap it about the trunk. A copious watering follows, which is repeated in the course of the season, as the weather and the health of the plant may require.

The Olive arrived at an advanced age may be transplanted in the same manner as the young tree. In general, whatever vegetable is to support this trial, the most important precept is that the earth be widely broken up and minutely subdivided, so that the roots may be placed in their natural position, and that their first efforts to extend themselves may not be embarrassed by compact masses, which they penetrate with difficulty, and from which they derive a scanty subsistence.

The Olives should be planted at such a distance that they may not interfere with each other, and that every portion of the soil may contribute to their nourishment. In meagre lands from which no other produce is exacted, eighteen or twenty feet are enough; but in vineyards or corn lands they may be thirty five or forty feet apart. Cato assigns twenty-five or thirty feet, which, as mean term, is sufficiently exact. In warmer climates certain varieties attain such dimensions as to require a space of sixty or seventy feet.

Our Olive-yard being thus formed, our next inquiry is concerning the culture necessary to obtain the most certain and the most abundant produce. Virgil, after describing the assiduous attention exacted by the Vine, leaves the Olive almost to nature.

> Contra, non ulla est Oleis cultura: neque illæ
> Procurvam expectant falcem, rastrosque tenaces,
> Cum semel hæserunt arvis, aurasque tulerunt.
> Ipsa satis tellus, cum dente recluditur unco,
> Sufficit humorem. . . . .
>
> Vir. Geor. II.

> Not so the Olives: when their roots have found
> A commerce open with the friendly ground,
> And, firmly seated, can securely bear
> The summit tempted by the sportive air,
> No more the harrow nor the knife they ask—
> The plough completes, alone, the easy task.

Columella, on the contrary, advises the husbandman to bear in mind a judicious proverb: *Eum, qui arat olivetum, rogare fructum; qui stercoret, exorare; qui cædat, cogere.* It is true that the Olive does not become barren when totally abandoned; but, like other vegetables, it repays the neglect of the husbandman with a diminished produce, and his care with larger and more abundant fruit.

In Provence it is customary to turn the soil in the spring and in the fall. Besides the tillage of the plough, the ground should be carefully dressed with the spade about the foot of each tree. More labour is required by some soils than by others: a compact, argillacious loam must be more frequently turned than a light, calcarious mould.

The Olive-yard should be manured at least once in three or four years; but it would be more beneficial to sustain its strength by moderate, annual supplies. Most species of manure, while they increase the produce of the Olive, impair the quality of its fruit: the finest oil is made from wild trees growing in calcarious lands of moderate fertility. Vegetable substances are preferable to animal manures for fruit trees in general, and especially for the Olive and the Vine. When animal matter is employed, it should be tempered with marl, sea-weed, leaves, etc., and applied only when the whole is reduced to mould. To soils deficient in this ingredient, calcarious matter is of the utmost utility. Great benefit is said to be found in Spain from sea-water poured upon the roots of the Olive. But the finest manure is the offals of the fruit that has been pressed, and the washings of the utensils and of the oil vessels.

The manure is spread in the fall, in the winter, or before the tillage in the spring. Its effects are most sensible when it is applied at the beginning of winter, as, during this season, its virtues are imbibed by the soil and communicated to every fibre of the roots; through the spring and summer; on the contrary, it sometimes remains nearly inert beneath the surface. But in climates where the Olive is liable to injury from cold. the most serious accidents are to be feared from keeping its roots too warm in the winter. Its vegetation being in this manner quickened, so that the sap is set in motion by every genial sun that softens the bosom of nature, it is exposed to the most imminent danger from the returning frost. The fatal effects of cold are frequently less attributable to its intensity than to its suddenness: a plant which has become relaxed by the tepid breath of a deceitful zephyr is surprised and killed by the frozen blast of the north wind. To maintain an even temperature at the roots during the winter. earth should be heaped about the base of the trees, and the manure should be spread early enough in the fall to assist them in ripening their fruit and preparing the bloom of the succeeding year, or late enough in the spring to avoid the accidents of frost. The Greeks do not make use of manure, except when chance conducts a flock of sheep to the foot of an Olive, which immediately becomes conspicuous by a richer vegetation.

When substances proper for manure cannot be obtained in the requisite abundance, the deficiency may be supplied by sowing grasses or cereal plants, and ploughing in the green herb. The intelligent cultivator is aware that he thus not only renders back what was extracted from the earth, but, as vegetables imbibe nourishment from the atmosphere, and as their roots arrest nutritious particles which would have escaped by filtration or evaporation, that he enriches the soil by an accession of new matter.

Vegetable chemistry has probably important secrets to reveal in this part of practical agriculture. As a soil may be exhausted by the continued growth of the same plants while it is still capable of bearing those of another genus, we should examine the nature of the particles consumed by different vegetables, in order to repair the waste by analogous supplies.

The most glaring imperfection in the agriculture of those parts of France which I have visited, is the deficiency of manure. The number of cattle on the soil of the kingdom is unequal to its wants; and the modes of supplying the deficiency of animal manure are not generally understood. Where the species of husbandry admits of rotation, a field is sometimes exhausted by the repetition of the same crop, and left to recruit itself by a period of absolute repose; and in Languedoc the vineyards are often prematurely destroyed, that the soil may recover heart by lying fallow, or by the substitution of some other culture.

In some parts of France agriculture has made approaches to perfection; but the zeal of improvement is not widely diffused. Agricultural societies exist in almost every department, whose labours are seconded by the ardour of enlightened individuals; but great meliorations must spring from a general spirit of emulation, which it is not easy to awaken. The French, notwithstanding the rapidity of their conceptions, are a passive people, tenacious of routine. The number of liberally educated men who unite a taste for rural-life with a fortune sufficient for experimental farming is comparatively small. "The foot of the owner is the best manure for his land;" but the gentry of France rush into the capital to escape from *ennui*, as, in the noble days of chivalry, the defenceless inhabitants of the champaign fled into the castles, at the approach of some plundering knight or lawless baron. The inspired twilight of their native groves is forsaken for the luxurious shades of the royal gardens, and the simple independence of rural life, for the gilded servitude of the court. Existence has a charm only in Paris: those who cannot reside in the metropolis hurry into the provincial capitals to attend the levee of the prefect, and prefer bending in the saloon of this humble representative of royalty to dispensing instruction and happiness among their dependants at home. What *place* should a man solicit, before his country invites his services, who can breathe an untainted air upon his own estate?—Nor have the French, in appreciating the dignity of agriculture, modelled their taste upon that of the ancients as scrupulously as in their literature: under the former monarchy rural employments were considered degrading to a gentleman.

Though these reflections were doubtless more applicable before the revolution, and even before the restoration of the throne, they are still, to a certain degree, just.—But let me not lightly reproach an august nation with faults to which a corrective has been applied, radical in its effects, though necessarily slow in its operation. They will disappear as its institutions become more popular, so that public consideration shall be obtained by public services, and not by the favour of the great. Experience has not been thrown away upon the French people; they are forming a national character, in whose splendour the glory by which they and Europe have been dazzled well be swallowed up and lost. Their liberty was planted amid storms that threatened the social world with dissolution; it has resisted the hostile influence of every element, and it will rise and spread itself, ample and strong, till it overshadows this happy country, and till its roots pierce the soil of distant lands. England herself, if she does not rise up betimes and assert the reforms that have become vitally necessary to her constitution, may take lessons from her rival widely different from the contrasts with which he has been wont to feed her pride.

The remaining part of the cultivation of the Olive is pruning. Bernard informs us that this practice was but lately introduced into Provence, and that it is not universally adopted, nor reduced to correct principles and uniform rules. In some places a limb is lopped away every year to renew the wood: but this is an injudicious mode, as the suckers to which it gives birth engross the sap to the prejudice of the productive branches. Pruning consists in cleansing a tree from dead wood and other impurities, which may be done at all seasons and by the simplest hand; and in retrenching its superfluous growth, which is a delicate operation and requires judgment and experience. Its object is to determine the form of the tree, to open it to the light and air, and to regulate its produce. This is done by diminishing the number of branches, and by extirpating such as are too feeble or too luxuriant. The pruning of the Olive is subject to the general principles of the art, modified by the peculiar nature of the tree. A part of its branches should be curtailed every year, and the number of bearing shoots determined so that it may not be exhausted by its fruit. After twelve or fifteen years, one or two of the principal limbs may be lopped, and at intervals, which must depend upon the condition of each tree, the whole summit may be retrenched. The most favourable season for pruning the Olive is in March.

Such is, summarily, the husbandry of Provence; which, though susceptible, perhaps, of improvement, is the most perfect in Europe.

More than thirty varieties of the Olive are known in France,* which are distinguished by their size, by their temperament as to soil and climate, and by the qualities of their fruit. Some of these varieties, like those of the Vine, owe their characteristic properties to the scene in which they are reared.

The principal product of the Olive is oil, but the pickled fruit is also a valuable article of commerce. The simplest manner of preserving the green Olives is by covering them with a solution of common salt impregnated with fennel, cumin, coriander-seed and rose-wood: the most perfect method is that employed for the *picholines* of Provence, which are so called from *Picciolini*, by whom the process was invented. They are gathered in the beginning of October, and the finest of them are selected and thrown into a weak solution of soda or potash rendered caustic with lime. In this solution they remain eight or ten hours till the pulp ceases to adhere to the stone: they are then steeped, during a week, in pure, cold water, daily renewed, and are afterwards transferred to an aromatic brine. Such of them as are destined for the tables of the luxurious are taken out after a certain time, deprived of the stone, in place of which is substituted a caper or a bit of truffle, and closed up in bottles of the finest oil. In this manner they are kept palatable for two or three years. The sweet Olive of the ancients, which was eaten without preparation, is said to exist in the kingdom of Naples.

The proper season for gathering the Olives for the press is the eve of their maturity, which varies in different climates and in different varieties of the Olive, but which is easily distinguished by the colour of the fruit. Two powerful considerations should engage the cultivator not to delay the Olive-harvest. We have already observed that the produce of this tree is alternate. The phenomenon, it is true, is more uniformly witnessed in some varieties than in others; but it might be assumed as a constant character, if it was not proved by experience to depend upon accidental causes. It has been attributed to the injury sustained by the trees in beating off their fruit; but it is not observed in some places where this practice prevails, and is constant in others where it is discarded. It has also been ascribed to injudicious pruning; but it is witnessed alike in Olive-yards pruned in the most opposite modes, and in those that are unconscious of the knife. The little fruit that is borne in the year of repose is, also, of an inferior quality. Some other explanation must therefore be sought for, and a satisfactory one is indicated by Pliny in the continuance of the fruit upon the branches after its maturity: *Hærendo, enim, ultra suum tempus, absumunt venientibus alimentum.* This cause, which is generally admitted by vegetable physiologists in France, has been developed by Olivier in a memoir presented to the Economical Society of Paris. Evergreen trees, and among them the Olive, put forth the young shoots that are to bloom the succeeding year, not in the spring, like trees with deciduous leaves, but at the close of summer; and the buds are prepared during the autumn and the beginning of winter. If, then, the tree is overladen with fruit, this second growth is prevented, and the hopes of the following season are precluded; or, if the fruit is left too long upon the branches, it diverts the juices which should be employed in the preparation of the flower-buds. At Aix, where the Olive-harvest takes place early in November, it is annual and uniform; in Languedoc, Spain, Italy, etc., where it is delayed till December or January, it is alternate. The quality of the oil, also, depends upon gathering the fruit in the first stage of its maturity. It should be carefully plucked by hand, and the whole harvest completed, if possible, in a single day. To concoct the mucilage and to allow a part of the water to evaporate, it is spread out, during two or three days, in beds three inches deep.

The oil mill retains nearly its primitive form: it consists of a basin raised two feet from the ground, with an upright beam in the middle, around which a massive mill-stone is turned by water or by a beast of burthen. The press is solidly constructed of wood or of cast iron, and is moved by a compound lever. The fruit, after being crushed to a paste, is put into sacks of coarse linen or of feather-grass, and submitted to the press. The virgin oil, which is first discharged, is the purest, and retains most sensibly the taste of the fruit. It is received in vessels half filled with water, from which it is taken off and set apart in earthen jars: to separate the vegetable fibres and other impurities, it is repeatedly decanted. When the oil ceases to flow, the paste is taken out and broken up. As the sacks are returned to the press, boiling water is shed over them, and the pressure is renewed with redoubled force, till every particle of the oil and water is extracted. The mixture is left in a vat from which the oil is taken off as it rises to the surface. This oil, though less highly perfumed than the first, is nearly as fine and is usually mingled with it. The offals of the fruit are sometimes submitted to a third process: in a basin into which a rill of pure water is admitted, they are ground anew, the skins and mucilaginous particles floating on the surface are drawn off into reservoirs, and the shells are preserved for fuel. The utmost cleanliness is necessary in making the oil, which is finished in a day: with the nicest economy in the process, it amounts in weight to nearly one third of the fruit. The mean produce of a tree may be assumed, in France at ten pounds, and in Italy at fifteen: but single trees have been known in the productive season to yield three hundred pounds.

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* The most exact and extensive catalogue of the Olives is found in the New Duhamel. The following are some of the most esteemed varieties:

1. The *Olivier pleureur*, *Olea craniomorpha*, 14th variety in the New Duhamel, is one of the largest and finest trees. Its branches are redundantly numerous, and pendant like those of the Weeping Willow. Its fruit is good for the table, and yields a pure and abundant oil. It should be placed in valleys rather than on elevated grounds, as it has more to apprehend from drought than from cold: there are individuals of this variety in Languedoc that have three times survived the general destruction of the Olives by frost.

2. The *Olivier ā fruit arrondi*, *Olea sphærica*, 26th variety, N. D., is also among the least sensible to cold. It requires moisture, a good soil, and abundant manure. Its oil is of a superior quality.

3. The *Olivier de Lucque*, *Olea minor Lucensis*, 9th variety, N. D., is hardy and yields a fruit proper for preserving.

4 and 5. The *Aglondaou*. *Olivier ā petit fruit rond*, *Olea fructu minore et rotundiore*, 3rd variety, N. D., and the *Olivier de Salon*, *Olea media fructu subrotundo*, 19th variety, N. D., are good for oil, and prefer dry and elevated grounds.

6. The *Olivier amygdalin*, *Olea amygdalina*, 25th variety, N. D., is much esteemed about Montpellier for its fine and abundant oil.

7. The *Picholine*, *Olea oblonga*, 11th variety, N. D., yields the most celebrated pickled Olives. This variety is not delicate in the choice of soil and climate.

The kernel of the Olive affords an oil the mixture of which with that of the pulp is said to injure its flavour and to hasten its rancidity. A machine has, in consequence, been invented for bruising the pulp without crushing the stone: that the arguments for its adoption have not prevailed over the established usage is no proof of their unsoundness; more convincing evidence is found in the exquisite quality of the oil of Aix.

But there are abuses which experience has demonstrated without being able to correct them: the fruit, after hanging too long upon the trees, is kept fermenting in heaps, to increase the quantity of oil, while the only effect is to vitiate its quality.

Before the revolution, an apology was found for these abuses, in France, in the embarrassments to which industry was subject from the oppressive exactions of the feudal lords, and from the absurd interference of the government. The tenants were compelled to use the mills of the lord, which were never sufficiently numerous; and in Languedoc the period of opening them was fixed by the police, as the time of collecting the gall-nuts is appointed by the Turkish Agas in Asia. The ancient practice is now gradually yielding to a more perfect method; yet how slowly is prejudice subverted, even by interest!

Besides the finest oil which is used upon the table, immense quantities are employed in the making of soap and for other mechanical purposes. A part of what is consumed in this way at Marseilles is imported from Greece and the Mediterranean Isles.

I have thus rapidly sketched an outline of the history and cultivation of the far-famed Olive.—Among the gifts of Minerva which adorn our rising empire, policy and arts and arms, may we hope to see her favourite tree enrich our soil? Some light may be thrown upon this inquiry by an examination of our climate, but it can be resolved only by experience.

The eastern and western shores of the Atlantic Ocean differ essentially in the phenomena of climate. In Europe the distribution of heat through the seasons is more uniform, and the medium of the year more elevated. This equability is highly favourable to the perfection of organized bodies; hence the vegetables of America are meliorated in the corresponding latitude in Europe, while many productions of Europe cannot exist under the same parallel in America. We are obliged, also, to migrate in the train of the seasons in quest of an agreeable temperature, which the more favoured Europeans enjoy without changing their native signs: we experience, in the same latitude, the summer of Rome, the winter of Copenhagen, and the mean temperature of the coast of Britany. Nor is this difference attributable to the state of cultivation, nor to any accidental cause with which we are acquainted: in the eternal forests that shroud our north-western coast we find again the delicious climate of Europe, while Tartary and China repeat the phenomena of our own. For the enjoyment of life and for the richness of agriculture, we should have been more advantageously situated on the opposite side of the Continent.

The Olive requires a climate whose mean temperature is equal to 57°, 17′, and that of the coldest month to 41°, 5′. In the United States, where the mean temperature of the year is 57°, 17′, that of the coldest month is only 0°, 5′, with some days far more intense. The capriciousness of our climate is still more dangerous to delicate vegetables than its inclemency; the difference of temperature in a single day is sometimes almost equal to that of the whole year in the south of Italy. The Olives near Charleston were rendered barren by the vernal frosts which congealed the young shoots. In a more southern latitude they would be secure in the winter, but they would languish through a sultry summer, unrefreshed by the healthful breezes which they respire on the shores of the Mediterranean Sea; they would, besides, find a silicious instead of a calcarious soil.

But with all these disadvantages, tracts uniting the conditions necessary for the growth of the Olive may probably be found sufficiently extensive for our wants. The possibility of its flourishing on our shores has been demonstrated by at least one experiment. While the Floridas were held by the English, an adventurer of that nation led a colony of Greeks into the eastern province, and founded the settlement of New Smyrna: the principal treasure which they brought from their native clime was the Olive. Bartram, who visited this settlement in 1775, describes it as a flourishing town. Its prosperity, however, was of momentary duration: driven to despair by hardship and oppression, and precluded from escape by land, where they were intercepted by the wandering savages, a part of these unhappy exiles conceived the hardy enterprize of flying to the Havanna in an open boat; the rest removed to St. Augustine when the Spaniards resumed possession of the country. In 1783 a few decaying huts and several large Olives were the only remaining traces of their industry.

Louisiana, the Floridas, the islands of Georgia and chosen exposures in the interior of the State, will be the scene of this culture. Perhaps it will be extended to some parts of the Western States; it has been hastily concluded that the Olive can exist only in the vicinity of the sea; it is found in the centre of Spain, and in Mesopotamia at the distance of a hundred leagues from the shore. The trial should be made in every place where its failure is not certain, and for this purpose young grafted trees should be obtained from Europe, and the formation of nurseries from the seed immediately begun.

The Olive is perhaps the most valuable, but it is not the only accession that might be made to our vegetable reign, if a more enterprising spirit prevailed in our husbandry, and if establishments were formed for the reception of exotic plants. This important subject claims the attention of government: amid its labours for the promotion of commerce and manufactures, why should not its fostering care be extended to agriculture?

The people of the United States, instructed by experience, have consecrated an altar of oblivion to the Genius of the waves and to the Genius of the soil. They will not allow one system of industry to be promoted at the expense of another. We have solved the transcendant problem of reconciling the interest of the individual with that of the public, by throwing down the barriers to *every* species of industry, and by leaving every man to enjoy the fruits of his labour undiminished by the exactions of a rapacious government. Let these principles be the immovable basis of our political economy. The height of prosperity at which we have arrived is doubtless attributable to the successful enterprises of our merchants, and our commerce should still be cherished and defended like the sacred soil of the Republic. But is not the moment arrived when we may begin to measure the greatness of our country by some other standard than simply that of commercial prosperity? With means so ample and unembarrassed, might we not give more activity and extension to works of domestic improvement? Education remains to be perfected—a national character to be formed—our strength to be established on durable foundations by the development of our internal resources. Institutions should be devised, which, by assimilating the feelings of our citizens, may corroborate that union which is the bulwark of our national independence, without intrenching on those subordinate sovereignties which are the guarantees of our political liberty. A taste for pacific glory should be inspired, and an impulse given to public spirit, in harmony with that magnanimous moderation which becomes the future arbiter of nations.

From these great objects no schemes of vulgar ambition should for a moment divert our ardour. Already, the influence of our character far exceeds that of our strength, and our claims to the rank of a primary power are admitted by anticipation. The attention of the world is daily becoming more intently fixed upon our actions. Old Europe contemplates us with reverent affection, as the hoary-headed warrior gazes on the blooming hero whose youthful achievements eclipse the glory of his sire. A great example is wanted by mankind; from us they demand it; and the cause of universal liberty is interested in our conduct.

I do not utter these sentiments in the language of reproach. Much has already been done by my country, which is admired by cotemporary sages, and which will go down with honour to a more enlightened and philosophical posterity; all that is great and good may be hoped from her maturer wisdom: but I feel interested in her glory; she has risen upon my affections by absence, and upon my esteem by comparison; her progress, however rapid, halts behind the impatience of my wishes.

Our fathers have left us a noble inheritance, and it is our duty to improve it. What surer basis can we choose for national wealth, than a learned and enterprising agriculture? How can we more effectually strengthen the ties of interest that bind the extremities of our country in indissoluble union, than by augmenting the number and the value of their useful productions? How can the intelligence of a people be more favourably developed, than by an art which gives so wide a scope to comparative sagacity, and which brings its conclusions to the test of immediate experience? Who are more likely to be devoted to their country, than those who have attached the hopes of their children to its soil?—There is, besides, in the profession of agriculture, something so congenial to republican manners, that we should naturally expect to see the freest country the best cultivated. Remote from the contest of sordid passions, and surrounded by all that is necessary to his happiness, the husbandman has no inducement to calculate the interest upon political corruption. A laborious life, spent in the open air, in the majestic presence of Nature, lends a corresponding simplicity and elevation to his character. In public stations a patriot is often driven from his purpose by the jealous opposition of his rivals, or by the invincible prejudices of his age; he must, at least, sacrifice his freedom to the duties of his office; but in a life devoted to agricultural improvement, the purest sources of rational enjoyment are united: the first want of a generous spirit is that of being useful to mankind, the second, is that of *liberty*.

If you mean to be happy when old, be temperate when you are young.

That which is bought cheap is often the dearest.

Pennsylvania Horticultural Society.

The Pennsylvania Horticultural Society held a special meeting on Wednesday evening 22nd ult. at the Washington Hall, for the purpose of exhibiting to the members and their friends the Fruits of the season, the growth of our city and vicinity. The notice was short, but the collection brought to the room was extensive, and gave great satisfaction

Charles Chauncey, Esq. sent several Lemons, of a very large size and fine flavor, raised by himself; Pound Pears, very large Apples, and the beautiful Lady Apples (pomme d'api.)

The collection of *Peaches* was truly grand. Mr. Bates, of Camden, New Jersey, the well known extensive and successful cultivator of fruit, sent a quantity of his fine white free-stone Peaches (seedling,) in high order, tender and luscious; and Rodman's Cling. Heath Peaches, from Mr. George Pepper. Do. for preserving, by Mr. M'Arann. Several other parcels from different persons, not known. Mr. Fred. Fox, of Kensington, and Mr. Jacob Pierce, of Philadelphia, sent parcels of their seedling free-stone Peaches, which were much and deservedly admired. The last were raised in the garden of the Friend's School, south Fourth street.

Pears.—Doyenne Gris, from Mr. Maupay. The favorite Seckel Pear, from Mr. M'Arann, Mr. Pepper, and from several others. The Petre Pear, by Mr. Carr: the original tree bearing this delightful fruit was sent to the late John Bartram by the eighth Lord Potre, who died in 1742; the tree still lives in a thrifty state, and the fruit preserves the high character it has hitherto obtained. Mr. Carr also sent a pleasant tasted seedling Pear.

Grapes.—Several sorts raised by Jacob S. Waln, Esq. from foreign stocks. Isabella Grape, from George Vaux, Esq. all in high perfection. The Bland Grape, Alexander or Tasker Grapes, from others, names not known.

The variety of *Apples* was great and the species excellent. The monstrous Cat-heads, a variety of the fall Pippin, attracted particular attention, from their great size; several of them weighed a pound each. The genuine fall Pippins were nearly as large and very beautiful: these were sent by several persons; those of Dr. Spence were particularly noticed. The Bell-flowers of Mr. Carr were also large and fine. The Hay's Apples, from Mr. M'Arann, were a good sample of that excellent fruit.—The Ashmore Apple, from James E. Mifflin, nurseryman, Wrightsville, York county, Pa., was greatly praised: they came from the original tree on the farm of Mr. John Ashmore, of Broad Creek, Harford county, Maryland: colour, deep lively red, streaked; taste, slightly but pleasantly acid; flesh, tender, above the common size: besides being a very excellent desert and culinary Apple, it is valuable for drying, and keeping until mid-winter. Numerous and excellent as the varieties of our Apples are, the Ashmore Apple promises to be a valuable addition to the stock, combining a beautiful exterior and excellent quality.

The Yellow Egg Plum of Mr. M. Lawrence, of Penn township, which were first shown at the preceding regular meeting of the Society, were again produced: they were large and brilliantly yellow, and would have done credit to Albany. Dr. Mease sent blue Pruen Plums, of good flavor, and Mr. Smith excellent Butter Pears.

Mr. Copia, of Pine street, sent Quinces, Butter Pears, and late Pears, the growth of the same tree—a Quince. The Butter Pears weighed nearly a pound; last year they weighed 1 lb. 6 oz. in the presence of several persons.

Culinary Vegetables.—By Mr. Engleman—immensely large hard head Cabbages, strings of very large Onions, very fine red and white Celery, large Salsafy, a foot or more long. By Mr. Barlow—Egg Plants, which were weighed and found to balance 9 lbs. 2 oz. Do. by Mrs. M'Mahon; one weighed 11 lbs. 2 oz. Several more were nearly of the same bulk.

Melons.—Water and Nutmegs, from Mr. Bates, of Camden, N. J. The water melons were truly excellent, and of a brilliant red color. They appeared to be of a new sort, being very tender and peculiarly sweet.

Sweet Potatoes, from different persons. Those of Mr. Bates were so large and handsome as to strike all observers, and call forth the praises of the practical gardeners present.

Quinces were sent by Mr. Collins, of Haddunfield, N. J., fair and free from knots.

The tables were ornamented with a variety of elegant trees and shrubs, in pots and tubs, and with a tasteful display of cut flowers, among which the superb Dahlias of Professor Gibson were conspicuous. Mr. Carr also exhibited specimens of that singular flower, the Aristolochia Labiosa, from Brazil.

[*Nat. Gazette.*

MISCELLANEOUS.

LOCAL ATTACHMENTS.

The 35th number of Silliman's Journal of Science, in an article under the head of "Architecture of the United States," has the following remarks: [*Ral. Reg.*

"Place in a village a handsome public monument, or pillar, or church, and I do not hesitate to say that, all other things being equal, those villagers will be bound more to one another, and to their village, than those of another. Place by another a group of trees, with a fountain playing in their midst; have beneath them tasteful seats, and make it a place to which experienced age and prattling infancy will go for company or amusements; a spot where the villagers will assemble in the evening for cheerful conversation, and I venture to say that these people will love their homes more, and think less of changing; will improve them more; that they will be wiser; that their taverns will be less frequented, and that every good feeling will more prevail among them, than would have been the case without. Place in a town or city, a spot with spreading trees, and pleasant walks between, a spot which would serve as an agreeable promenade, and the feelings of that people will flow in a kinder and smoother channel; there will be more happiness than there would have been. It is a delightful amusement to saunter along the French *promènade* about sunset, and observe the happy groups of all ages, that throng them; to watch the rapid sale of bouquets, at the platforms which line the sides; (flowers only are admitted there.) As an American looks at the cheerful scene, he must think with pain of his own cities, where every thing seems calculated for dull labour, or lynx-eyed gain. It is doubtless owing, in some degree, to the provision of such places in foreign countries, that their natives resort less to taverns for amusement than with us; and that intoxication consequently is less frequently seen.

"The French have their Boulevards; the Spaniards their Prado; the Italian their Gorso; all of these have their public gardens, and we have our tippling shops, the bane and disgrace of our land, and shall have them, I fear, till we provide more innocent places of resort. All attempts to check this current of feeling are vain; the stream must flow; and if we give it a channel, will refresh and beautify the land it would otherwise have desolated and destroyed."

So much for the effect on the morals of a people. The re-action on the mind is also of very great consequence. A flourishing state of architecture, it is true, implies a good degree of previous mental culture; but no cause, perhaps, operates with more quickness, certainty and power, in refining the mind, thus prepared, than this. It is placing objects of taste before the public, which they cannot help seeing, about which they must converse, whose beauties they must analyze, on which, in short, all will turn critics, and the sure consequence will be, a refinement of taste, an elevation of mental character which will carry itself into all the concerns of life. The principle of accommodation is one of the most powerful and useful in our nature. Place a civilized man among savages, and his thoughts, feelings and habits will, before many years, be strongly assimilated to those of the savage; place a savage in refined society, and his character will in a short time undergo a change. Place a number of tasteful public edifices in a town, and the private buildings of that town will become classic and tasteful; build private edifices on the principles of good taste, and I do not hesitate to say, that their interior will correspond—that in cleanliness, good order, regularity of the system within, there will be a sure and rapid improvement re-acting strongly on the mind, as well as on the moral character of the occupants.

VIRGINIA GOLD.

In order to obtain correct information on the subject of the gold mines in Virginia, the editor of the Richmond Enquirer addressed a letter to Mr John Lewis, of Spottsylvania, a scientific gentleman, and received from him an interesting answer. The latter gentleman states that gold, in pieces varying from particles barely perceptible to the eye to such as weigh thirty or forty pennyweights, is extensively diffused over a strip of land passing through Spottsylvania and other counties; it is found on the surface, and in a stratum of quartz, being not unfrequently incorporated with it. The richest strata rest upon slate, and enter its fissures and crevices; from such places much gold is obtained. Although gold of this character is extensively diffused over large surfaces, Mr. Lewis asserts that but *few* places have been found where the produce will pay for the labour of separation. The present method of working is as follows:—

"The earth is dug up and carried to the nearest stream, and thrown on a sieve of wire, or perforated iron wheel, placed in one end of a semi-cylindrical trough, like a canoe, about eight or ten feet long, fixed on pivots at the ends, so as to rock like a cradle; a jet of water falls on the earth in the sieve, and passes through the whole length of the washer, carrying off all substances, light enough to swim, or held in solution by the water; the heavier substances are left, the larger *on the sieve,* and if any gold, it is seen and taken up—when the sieve becomes full of pebbles, it is taken off to be examined and emptied. The smaller heavy substances pass through the seive with the water, to the bottom of the canoe or washer, where it subsides, and any gold is detained, and forms an amalgam with quicksilver, deposited in the bottom of the washer, and kept from going out at the farther end, with the muddy water, by transverse ledges fastened in the bottom of the washer. The gold thus found, is then either pieces in *their native state,* taken off the sieve, or finer or rather smaller particles, caught by the mercury—and, therefore, in the form of amalgam, which is easily separated by heat evaporating and re-condensing for use again the mercury.—About three-fourths of the gold obtained, is in the amalgam."

The expense of the fixtures, labourers, &c. necessary to work one of the mines, is about $960 per year; from the same mine gold has been sold in one year sufficient to produce $6505. This, it should be remarked, is a surface mine; others are not so productive, and cost more for labour. Mr. Lewis remarks that in prosecuting the business much money will be expended and much disappointment experienced by the sanguine and ignorant. He thinks, however, that through science, practical skill, industry and economy, fair profits will be realized. He states that foreign and northern capitalists are beginning to turn their attention towards the gold section, and doubtless many valuable mines will fall into their hands.

THE FARMER.

BALTIMORE, FRIDAY, OCT. 1, 1830.

The President of the MARYLAND AGRICULTURAL SOCIETY, requests the *Trustees* to meet on Saturday the 9th of October, at 12 o'clock, on special business, at the residence of Mr. Carroll, of Carrollton, on Elkridge.

NECESSITY OF ACCLIMATION IN FRUIT TREES AND SEEDS.

Complaints of the failure of fruit trees, seeds, &c. to produce as expected, when imported from distant places, and especially from the northern to the southern states, are frequently made in conversations in our office, when southern gentlemen call on us, and are often the subject of many of the letters from correspondents; in all which the nurserymen and dealers in seeds are blamed.* Accordingly it has been a matter of much reflection with us, and we have taken every occasion to collect such information as would enable us to suggest some useful hints on the subject. We have also tried some experiments, which, although not conclusive as to the general theory we shall presently advance, certainly go far to establish it with respect to the individual subjects of them. Some of our most respected correspondents also have contributed to the establishment of the same principle.

The theory is this, that all vegetables whether in the state of seeds or plants when transported from a northern to a southern climate, require *acclimating*, before they will produce fruit of their accustomed excellence and quality. We have not observed this necessity when they have travelled eastward or westward, provided the same latitude has been preserved. We have known the best white wheat, obtained from the north and sown in Carolina, to fail utterly in its new climate. Perhaps the soil was much in fault, but it is believed the climate was the principal cause of failure. It is known, however, that the quality of wheat depends much upon the soil. Thus the white wheat of the Eastern shore of Maryland, with its large proportion of *gluten* (whence its *strength*, as the bakers term it,) has failed to produce its like in any other situation. And it is also known, that land on which a good proportion of animal manure has been used, produces better wheat, than that cultivated with vegetable manures alone. But still, climate is considered as exerting a much more powerful influence. and hence a remedy or rather a mode of overcoming the evil is desirable. When a farmer in the south obtains seed wheat from the north, let him not despair. if his first crop prove very inferior—both in quality and quantity—it is the effect of the process of acclimation, and a second crop will probably prove better, and a third will most probably prove satisfactory. This will hold good with most seeds;—we have been successful with many, by persevering in this mode.

With respect to fruit trees, vines, &c. the best mode of ensuring their growth and continued excellence of fruit, would seem to be *engrafting upon native stocks.* Thus, those who intend to obtain any of the superior fruits of the north should raise stocks by planting seeds, and obtain grafts from trees of known excellence in the north and engraft these upon them. We do not assert positively that success will inevitably attend this process, but we do not hesitate to say that it is the result of our most deliberate reflections. We believe that those who try it with the peach, the pear, and the apple, will not only succeed in obtaining the desired fruit, but have trees of better health and longer duration, than they would in any other way. This principle has been successfully practised on the vine, by Mr. Herbemont of South Carolina, and Mr. Sinclair of this city, and it is believed to be the best mode of naturalizing foreign vines to our climate. In this case the wild vines of the woods, chicken grapes, &c. may be taken for stocks with great advantage. In this theory we have for our support at least one powerful auxiliary, common sense. The stock of the engrafted plant is naturalized to the soil and climate, and can therefore nourish and support the tender stranger; while, if the whole tree be imported, it wastes its strength and dwindles in its efforts to accommodate itself to a strange climate and to obtain support in a strange soil. The two cases may be aptly compared to a young man in a strange country. If happily he be *engrafted* upon an established family, and receive its countenance and support, how much better will he not do than he would if left to build himself up in reputation and business, by his own unaided exertions, among entire strangers.

We have thrown out these hints with great deference to the more extended experience of our readers, with a hope not so much that they will be taken as guides to a more useful practice, as that they will elicit investigation and suggest experiments from which the end will be obtained; and we solicit the opinions of experienced and practical men on the subject.

SUNFLOWER OIL.—Many enquiries have been made of us relative to the variety of Sunflower most proper for making oil, and the process of the improved mode of expression. It has before been stated in the Farmer, that the single-headed Sunflower is supposed to be the best. Whether the multiflora, or many-headed, is not so profitable, or does not afford oil of as good a quality, we are uninformed. The many-flowered is the common Sunflower of this part of the country, and we do not recollect to have seen the single-headed here. In the north, the latter is quite common, and we would suggest, that the seed be collected and sent to us for sale, as we have no doubt a ready market will be obtained for it. The seed should be of the genuine single-headed variety, and should have been raised where no other of the *helianthus* tribe, such as is commonly called *Jerusalem Artichoke*, as well as any other kind of Sunflower, grew in its vicinity, as they would be very apt to injure it.

The improved mode of expressing the oil has been patented by the inventor, Mr. Charles A. Barnitz of York, Pa., and could not be practised by any one without first obtaining the right from him; therefore even were we able to give it, no advantage could be derived from it by our readers. But Mr. Barnitz, in a spirit of great liberality, offers to dispose of rights upon terms so low, that any person disposed to go into the business, will be able to do so.

As to the quality of the oil, we have no doubt of its perfect adaptability to all the purposes of Olive oil, as well as many others, and that it will supersede Olive oil at least in this country. We have used it in various ways—on the table—to prevent rust on steel and iron, on hones, &c. and think it at least equal to the best Olive oil, and in some cases preferable; we prefer it for table use. It has also been used on the table by many other gentlemen, all of whom decidedly approve of it. When its great facility of cultivation in every part of this country, and the well ascertained impossibility of cultivating the olive in more than a very small portion, are considered. therefore, it is not hazarding much to say, that the Sunflower will very soon become a very important item of agricultural produce. Mr. Barnitz calculates that from fifty to seventy-five bushels of the seed may be raised per acre; and with his machinery, which will cost with the right to use it about $300, a gallon of oil can be made from a bushel. From this a very correct idea may be formed of the profits of the business.

TOBACCO TRADE.—We understand, that a proposition was brought forward some weeks since to throw all the purchases of American tobacco, for the supply of the Regie, into the hands of a single contractor. The effect of this regulation would have been to establish a *monopoly on a monopoly,* and to occasion a loss of from 150 to 200,000 dollars annually to the American planters. The scheme was approved by the Regie, and was awaiting only the approbation of the Royal Council. The American Minister heard of it —and immediately addressed a vigorous remonstrance to the government of France against it.—The remonstrance was well received, and arrested for the moment the adoption of the measure. What will ultimately become of it—or what arrangement will be made for the purchase of American tobaccoes, it is difficult, perhaps impossible to predict. For, since the agitation of this subject, the Revolution has broken out, and a *new order of things* prevails in France.

[*Richmond Compiler.*

The excessive drought which has prevailed in some portions of the western states, is still complained of in the Lexington (Ky.) Reporter of the 22d instant. In a number of the counties about Lexington, the crops of corn would fall short from one third to one half, and it was believed that the usual supplies of live stock sent to the southern markets would be materially lessened.

LATEST FOREIGN NEWS.

By an arrival at Boston, intelligence from London to the 18th August has been received. Charles X. and his followers had arrived at Isle of Wight, and was expected to spend a few days in England, when he would re-embark for Naples. Rumours were current, that the principal European courts had not recognized the new government of France. and that the Austrian cabinet had determined not to acquiesce in the elevation of Phillipe 1st, and had issued orders for 60,000 men to march upon Italy. Spain was on the eve of an insurrection, and there appears evident signs of a violent fermentation throughout Europe.

THE HARVEST.—London, Aug. 17.—Extract of a letter from Sussex, Aug. 15:—"After most glorious weather, we have now rain, and a good deal of Wheat is cut. The crops in general are thin; but the ears are full and fine. Oats are good, but Beans very indifferent. Hops improving daily, beyond expectation; and it is thought the best samples will be had in Sussex, but in general the farmers are suffering greatly, expecting to have last year's prices for corn, which were ruinous; and also for cattle the same, every one losing considerably by fattening."

Extract from a letter of W. & J. Brown & Co. received by the Alabama.

"LIVERPOOL, *August 17th.*

"Bonded flour is 32s. the extreme price. The next week the duty is certain to be 1s. 7d. or possibly 7d. per brl. Free is nominally 35s. a 36s. and wheat has declined materially. The weather is cold and we have had considerable rain the last few days, so that the prospects for a good harvest are not at present flattering. The wheat is said to be sustaining injury in some districts by the rust.

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* A little reflection would suggest, that interest alone would induce nurserymen and dealers in seeds, to supply their customers with the best articles; and we are free to declare, that we know of no one of them who does not use all the means in his power to obtain genuine kinds and those of the best quality; or who we think would knowingly sell worthless articles. And this will the more readily be believed of all of them, when it is recollected, that a reputation as a correct dealer is absolutely essential to one in such a business; for the sale of a single worthless tree or parcel of seed would do him more injury than probably twenty times the value of the article would benefit him. We have known many instances of persons obtaining trees that failed either in growth or produce, causing their neighbours to shun the nursery whence they came, saying—"My neighbour sent to him for trees and they all died —bore worthless fruit, &c. and I shall try somebody else." Thus, by the sale of a worthless tree, however innocently, a nurseryman loses the profits of the sale of hundreds of good ones. They are not so blind as not to see this, surely.

August 18th.—The weather was very wet yesterday, but the corn market was again lower, and flour was offered deliverable 21st inst. duty paid at 34s. It is astonishing how little American flour sells for consumption; there seems to be a strong and decided prejudice against it. The weather is fine to-day and being the change of the moon may perhaps be more settled."

"Dublin, *July* 21.

"In the Times of Monday there is a paragraph which, upon the authority seemingly of some evening paper, states that the accounts regarding the crops in this country are of the most alarming kind. *Pray warn your readers not to be misled by such statements.* There is nothing whatever to warrant them. We have had, indeed, some severe weather, but as yet not the slightest injury has been done. *On the contrary, there never was, within the memory of man, such a magnificent prospect.* The weather, since Sunday, has been most favourable, and there is every probability that it will continue. The corn-market, which was advancing rapidly, has been suddenly arrested. *The dealers are thrown into all manner of embarrassment by the arrival of the fine weather;* for if it continues, we shall have such a harvest as has never been remembered."

Prices Current in Boston, Sept. 24.

Apples, new, bbl. 2.00 a 3.00. *Beans,* white, bushel, .90 a —— *Beef,* mess, bbl. 10.00 a 10.50; cargo No. 1 8.50 a 9.00; No. 2, 6.50 a 6.70. *Butter,* inspected, No. 1, new, lb. .10 a .13. *Cheese,* new milk, 6. a .7; skimmed milk, 3. a 5.. *Flour,* Baltimore Howard-st. 5.75 a 5.87; Genesee, 5.37 a 5.62; Rye, best, 3.50 a 3.75. *Grain,* Corn, bu. .58 a 68; Rye, .65 a .67; Barley .60 a .65; Oats .32 a 35. *Hogs'-Lard,* 1st sort, new, lb. 11.50 a 12. *Pork,* clear, bbl. 19 a 20; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.00 a 12.50. *Seeds,* Herd's Grass, bushel, 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .33 a. —; White Honeysuckle Clover, — a .38; Red do. Northern, 9 a 10; French Sugar Beet ——; Mangel Wurzel ---- *Wool,* Merino, full blood, washed, .50 a. 62; do. do unwashed, .30 a .35. Merino mixed with Saxony, .60 .65; Merino three fourths washed, .47 *a* .—, do. half blood, .45 *a* .55; do. quarter, 37 *a* 50; Native, washed .45 a .42; Pulled, Lambs', 1st sort, 50. a 52; do. 2d sort, .42 a .55; Pulled Spinning, 1st sort, 42.

Prices Current in New York, September 25.

Bees-wax, yellow .20 a 22½. *Cotton,* New Orleans .11½ a .13½; Upland, .10¼ a .12½; Alabama, .10½ a .13. *Cotton Bagging,* Hemp, yd. .18 a .20; Flax .12 a .16. *Flax,* American, 7 a 8. *Flaxseed,* rough, cask —— a ——; clean — *Flour,* N. York, bbl. 5.12½ a 5.19; Canal 5.25 a 5.44; Balt. Howard st. 5.62½ a 5.75; Rich'd. city mills, 5.62½-country, — a 5.25; Alexand'a, 5.37½ a 5.50; Fredericksburg —— Petersburg, 5.37½ a ——; Rye Flour, 3.50 a 3·75; Indian Meal, per bbl. 3.00 a — per hhd —— a 14.50. *Grain,* Wheat, North, —— a ——; Vir. —— a 1.00; Rye, North, 68 a 70; Corn, Yel. Nor. .63 a 65; Barley, — a 58; Oats, South and North, .27 a .35; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions,* Beef, mess 9.50 a 10.00; prime a 5.50 a 6.00; cargo —— a —— Butter, N. York, 12½ a 15; shipping, 8 a 10; Lard, .11½ a .12½; Pork, mess bbl. 14.00 a 15.00; prime 9.75 a 10.00; cargo ——.

Prices Current in Charleston, Sept. 20.

Cotton, Sea-Island, .23 a 25. Stained .12 a 16. Santee, .21 a 23. Main, .21 a 23. Upland, inferior and common .9 a .10, fair to good, .10 a 10¼, prime to choice, .10¾ a .11 5-8. *Rice,* prime, $2¾ a .3.00, inferior to good, do. $2.62½ a .2.75. *Flour,* Philadelphia, Richmond and Baltimore Howard st. $6¼ a 6½. *Corn* .68 a .70. *Oats* 37 a .——; Peas, 65. *Hay,* prime Northern, 90 a 100.—*Whiskey,* Philadelphia and Baltimore, hhds. .30 a .—; bbls. 32 a —; New Orleans, old .32 a .34. *Tobacco,* Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax,* .18 a .—; Tallow, Carolina, 8. *Beef,* Boston, No. 1, .8½ a .9; No. 2, .8; Mess, 10; New York Mess, .9 a .10, Prime, .6 a .6½; Cargo, .5½, nominal. *Pork,* Mess. .14 a 15; Prime, .— a .11, scarce. *Bacon,* .7 a .— cents; Hams, .8½ a 9; Lard, 16 a —. *Butter,* Goshen, .18 a .— inferior, 8 a .10.

SHORT HORN CATTLE AND BAKEWELL SHEEP.

The subscriber has for sale several half, three-fourths, and seven-eighths blooded Short Horned yearling Bulls, price $50 to 75; one full blooded Bull, price $100; and one Cow, three-fourths Durham Short Horn, with a young Calf, by a full blooded Bull, price $75; one fine Holstein Bull, price $35. Also, two fine Bakewell Rams, price $22 each. GIDEON B. SMITH.

SAMUEL SLATER'S

PATENT THRASHING AND FANNING MACHINE.

This highly valuable and improved Machine is now offered to the public for inspection and criticism, at the South West Corner of Callowhill and Juliana streets, near the White Horse Tavern. A model may also be seen at the Agricultural Store of Messrs. Landreth, Chesnut, a few doors below Third street.

Farmers, Planters and Citizens, are particularly invited to call and see the same in operation. The patentee does not pretend to boast of his performance in bringing to perfection that which has been sought after for upwards of twenty-years; that is to say, a perfect machine for thrashing all kinds of small grain; also rice. He will leave that for the public to judge, and the machine to rest upon its own merits. It requires but little room, is simple in construction, permanent and durable, and performs beyond conception.

CAUTION.

The public are cautioned against purchasing any machine heretofore patented for thrashing of grain, until they have an opportunity of seeing the above in full operation. It is supposed to be the last patented by the United States Patent Office. The specification was only forwarded on the third day of July last. The patentee has been engaged as agent in vending different thrashing machines for the last seven years, and in accordance with the opinion of scientific men and agriculturists, it is through him brought to complete perfection.

RICE.

The above machine is unquestionably the best and cheapest ever offered to the public for thrashing of rice. Planters would promote their interest by seeing it in operation.

Township, county and state rights; also, single machines, with or without horse power, can be had by applying as above.

The patentee informs the public that attempts may be made by imposing upon them, in offering others: his may be known by his name on the concave in front of the machine. SAMUEL SLATER,

243 North Third street.

JOHN WEAVER, Agent,

S. W. Corner of Juliana and Callowhill streets.

Philadelphia, Sept. 16.

PATENT STRAW CUTTERS and PLOUGHS.

The Subscriber has on hand, a good supply of his Patent Cylindrical Straw Cutters, which are adapted to the cutting of all kinds of long forage, straight or tangled, and for their simplicity, durability and efficiency, he believes they have never been surpassed, he has sold between three and four hundred of them, and he believes they have given universal satisfaction.

He also keeps himself constantly supplied with Gideon Davis's highly improved Ploughs, in all their variety; and the castings to supply the place of those worn out, together with other implements of husbandry, as heretofore.

Likewise on hand, Herds and Orchard grass Seeds, and a general assortment of the Messrs. Landreth's Garden seeds.

Orders received for Fruit and Ornamental Trees, Bulbous roots, Flowers; &c. &c.

JONATHAN S. EASTMAN,

West Pratt-street, between Hanover & Charles.

ALMANAC.

1830. October.		Sun. Rises.	Sun. Sets.	Length of days.	Moon. sets.
		H. M.	H. M.	H. M.	H. M.
Saturday,....	2	6 12	5 48	11 36	5 40
Sunday,......	3	6 13	5 47	11 34	rises.
Monday,.....	4	6 15	5 45	11 30	7 25
Tuesday,....	5	6 16	5 44	11 28	8 10
Wednesday,	6	6 17	5 43	11 26	9 05
Thursday,...	7	6 19	5 41	11 22	9 55
Friday,.......	8	6 21	5 39	11 18	10 55

BALTIMORE PRICES CURRENT.

Baltimore Market.—There is no change in the prices of wheat; the market is well supplied, and demand equal to the supply. Corn remains about the same, although a single sale made on Wednesday at 57 cts. to fill up a vessel, gave occasion for rumours that it was on the rise. The failure of the corn crop in the south and west, it has been expected would cause a material advance in price, but so far it has not had much effect. It is said that much of the superabundant crop of last year is yet on hand, and will prevent any great advance. There has been little variation in flour, though the price paid to the wagons is a shade lower—$5.06¼ a 5.12½, was the average on Wednesday. Beef is beginning to improve, as there is not so much coming in.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 527 hhds. Maryland, 12 hhds. Ohio; total 539 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard-street 5.25 *a* 5.37½—city mills, 5.00 *a* 5.12½--Susquehanna, ——; Corn Meal, bbl. 2.25—Grain; red wheat, .90 a .93;-——white do. 95 *a* 1.00—common red --—Corn, white, .54 *a* .56—-yellow .56 *a* .—-Rye, .50 *a* .52-——Oats, .30 *a* ——Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 6.00 *a* 6.50 Timothy, 2.50 *a* 3.00-—Orchard Grass, 1.25 *a* 1.50-—Herd's, -— *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, -Flaxseed, 1.12½—Cotton, Va. 9½ *a* 10½--Lou. 11½ *a* 13—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½—Upland 10 *a* 12-Whiskey, hhds. 1st p. .31 *a* —; in bbls 32 *a* 33—Wool, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* 225; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, 6.25, *a* 6.50—No. 2, 5.75 *a* 6.00—No. 3, 3.75 *a* 3.87½-Bacon, hams, Balt. cured 10c.-Feathers, 34 *a* 35--Plaster Paris, cargo price per ton, 4.25 *a* -—ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.00 *a* 4.50—Pine Wood, by the vessel load, 1.75. Oak, 2.75 *a* 3.00—Hickory, $4.50.

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EDITED BY GIDEON B. SMITH.

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AGRICULTURE.

(From the British Farmer's Magazine,)

ON THE WHEAT-FLY.

To the Editor:

Sir,—Mr. Patrick Shirreff is entitled to the thanks of the agricultural community for his interesting observations on the origin and habits of that destructive insect, the wheat-fly. Let not, however, the Scotch farmers imagine that they are the only, or perhaps even the greatest sufferers by this "plague of flies." Their brethren of Norfolk and Suffolk have equal cause to complain of heavy losses from this apparently contemptible enemy; this pigmy, this Tom Thumb which attacks so many giants' heads, "and with his myriads yearly *takes the field.*"

Mr. Archibald Gorrie, of Annat Gardens, Perthshire, has also, in an able paper in the Quarterly Journal of Agriculture, thrown much light on their natural history, and traced them, or rather the maggots generated by them, from the wheat ear to their winter-quarters; he proves beyond a doubt that their object being attained, they descend from the ear to the earth and bury themselves slightly below the surface, where they remain uninjured by the severest frost though exposed thereto; for even at the low temperature of 18° they survived the winter. But though they appear proof against the action of frost, Mr. Gorrie has a theory for their destruction, on which he seems to place confidence; this is no other than burying them by wholesale! Now in individual cases, a person's having been buried is tolerably sound evidence that he is dead; but how far this holds good in the case of the wheat-fly, I have my doubts. However, Mr. Gorrie shall speak for himself. "Having succeeded in burying other caterpillars of larger growth, I have no doubt but that the wheat-fly maggot might be also got and kept under. This could be easily performed, if, in ploughing the wheat-stubbles, a scarifier or skimmer were fixed on the beam before the coulter,* of such construction as would cut and lay about an inch of the surface in the bottom of the furrow. If this were done correctly, and the subsequent ploughing kept so shallow as not to touch the buried surface, it is not likely that the maggots could work their way up through the superincumbent soil. Where grass-seeds are sown with wheat, this would be impracticable, but the sowing of the grass-seeds might be deferred, and some other green crop in the mean-time substituted. This deviation from the ordinary course, when wheat is followed with grass, would be attended with some loss, but not equal to what might be inflicted by the fly if let alone." Now, although what I am about to say, has no immediate reference to the wheat-fly I may be permitted to observe *en passant,* that the real "deviation from the ordinary course" is the sowing grass-seeds after wheat. If such be the general practice in Scotland, all I can say is, they are not the farmers I took them for. The course on good average soils ought to be, turnips, barley or oats, seeds, or, if they fail, beans or peas, wheat.

If wheat be taken after turnips (early got off) as I have known done *on rich lands,* then undoubtedly grass-seeds should be sown amongst the wheat, or the farm will be thrown out of course; but this is manifestly "a deviation from the *ordinary* course." The mention of this matter brings me to a part of the subject which I verily believe *does* bear on the wheat-fly. I have sometimes fancied, but I mention it not as a fact borne out by a long series of experiments or any very close investigation of the circumstances, that wheat sown late in the winter, or very early in the spring, is more liable to injury from the "Red Robin," as the wheat-fly, or rather wheat-maggot, is called in my country, than if sown at the proper legitimate season. I will state a case in point, as the lawyers say. In the spring of the year 1821, I was unlucky enough to have twenty-two acres of Talavera wheat, of which I had then a higher opinion than I have now; but no matter for that. My wheat was drilled (at seven inch intervals) on ten furrow *stitches,* as we call them; *ridges* or *butts* they are called in some counties; the soil a strong loam on a clay bottom, well drained, and full of manure, being after turnips early carted off. I never saw seed go in in finer order, nor come up better, nor thrive faster. In fact, throughout the summer it took the lead of all my other wheats, and I thought, as every body did who saw it, that I should have at least ten coombs an acre (forty imperial bushels.) However, I had no such good luck; at blossoming time, or soon after, I observed the "Red Robin" was very busy amongst the crop; and my poor wheat soon put on a most jaundiced and unhealthy sort of countenance, which boded no good either to the sample or the *cast,* as we call the yield.

To cut a long story short, we cut the wheat, an immense bulk of straw, but "sore little corn," as my men observed; for at thrashing time, in place of forty bushels an acre, I had not above twenty-four, and that of a most meagre, unsightly appearance. Now, in turning over in my mind, as one is apt to do, the probable causes of this disease, and the deficiency thereby occasioned, I could not help thinking that the time of sowing had somewhat to do with it, and I began to think I was rightly served for thus attempting, illicitly as it were, to obtain a crop of wheat, when I ought to have been content with what I should have been certain of obtaining, a capital crop of barley or oats. But then, the soil was in excellent heart, the turnips were cleared off in good time, the land all ploughed ready, every thing in short to tempt one to the commission of an agricultural sin; the deed was done; the result I have shown. What induced me to believe that spring sowing had something to do with the disease, was the following circumstance. In a field adjoining one of those I have mentioned, the soil of which could not consequently be very dissimilar, I had sown in the previous October, (whether by mistake or not I cannot now call to mind, nor is it very material,) about two acres *of this same* Talavera wheat; the seed was in fact part and parcel of that afterwards sown in the spring. The two acres came up well, and would have been a good crop, but for the frost, which carried off at least a third of the plants. It is therefore a *tender* plant, that fact I proved beyond the possibility of doubt; but I proved also another thing, at least I thought at the time it amounted to proof, that autumn sown Talavera escaped the "Red Robin." Almost every ear was perfect, and the sample beautiful, and I scruple not to say, could I always be sure of obtaining such, I should be tempted to risk the loss of some of the plants by frost rather than have an abundant crop of straw, with miserable, shrivelled half-filled ears, such as my spring sown crop produced.

Mr. Shirreff is disposed to attach but little weight to the notion that the fly attacks some kinds of wheat more than others, conceiving "that the fly ravages all varieties indiscriminately." I think he is wrong in this; my twenty-two acres of Talavera wheat were evidently more affected that year than any other portion of my wheat crop; and though the fact of the spring-sown being so roughly handled, whilst the autumn-sown escaped, would seem to imply that *season* had more to do in causing the disease, than the sort of wheat used, yet I cannot help thinking that the latter had no small share in the mischief. The opinion that some varieties are more liable to injury from this cause than others, and especially on loose, rich soils, I have unfortunately had too good reason from my own experience to believe is correct. I shall give one very striking instance. There is a kind of wheat, which in Lancashire produces a very bright, bold sample. The stock is called yellow Lammas, or, in common parlance, yellow wheat. Knowing the excellence of this variety in the above district, I procured a few bushels of it, with a view of introducing it into Norfolk. In the year following, I drilled a field of eleven acres with the produce; the crop was so completely cut up by the "Red Robin," that I was under the necessity of discontinuing the stock. Many of the ears were deficient one-half, and of those which remained, the grains were coarse, and in every respect the reverse of what I have ever found it in Lancashire. A friend, who had some of the seed of me, met with a similar want of success; observing that he had tried various sorts of wheat, but never found any to equal the "old red" in hardiness. This "old red" is a Kentish wheat, and there is no doubt but that it is subject to fewer diseases than many other varieties. The very year in which I grew my last crop of "yellow Lammas," almost all the rest of my wheat was of the "old red" stock; and though I do not mean to say it wholly escaped the "Red Robin," certain it is the injury it received from that cause was trifling compared with that sustained by the former sort.

Here then we seem to have a proof of the error of Mr. Shirreff's position, that "the fly ravages all varieties indiscriminately;" and we also arrive at another important conclusion, viz. that the quality of the wheat itself is totally changed by soil and climate. Yellow Lammas certainly does well in Lancashire, but it does not appear to succeed in Norfolk; it becomes a different grain altogether, and runs completely away from the parent stock. I cannot help thinking, but I offer the suggestion in all humility, that there is more connection between the "Red Robin" and the mildew, than is usually supposed to exist; at least, many of the circumstances attendant on the one seem also to attend the other; and particularly a loose soil, rich enough to send forth an abundance of straw, yet wanting tenacity to produce a plump, sound grain. In such case, we are almost sure of meeting with mildew, and its frequent, might I not add, invariable attendant, the "Red Robin." The usual, and indeed only remedy, is a good coat of clay or marl, to which may be added *artificial pressure.* These shorten and stiffen the straw, correct the natural defects of the soil, and, in short, in a great degree prevent the mildew. Not that I would hence infer that soils, the staple of which is such as I have described, will, with all the correctives we can apply to them, ever produce wheat so fine in the skin, and plump in the berry, as those which are in themselves and *par excellence* denominated good wheat lands. There is, I admit, a certain something in the Lancashire red marl, (commonly so called though marl it is not, but a mere clay, resembling brick earth) which is peculiarly favourable to the growth of wheat. In that county I have certainly seen by the application of marl very excellent samples produced even on moss, the soil of which is naturally a mere sponge. This is evidently the effect of the marl, since without it the wheat would not even come to maturity. There, even on those soils, I never remember any such plagues as the "Red Robin," the wheat-fly, or whatever other name it may go by.

I have hinted that the same remedy which would cure the mildew might perhaps cure the "Red Robin." Mind, I do not say it *would,* but only that it *might;* and if such a conjecture be inveighed against as absurd, because the one is a disease of the plant, the other the work of an insect, I answer by referring to the disease in turnips called the *Anbury,* or, in some districts, *Fingers and Toes.* This is also the work of an insect, but apply a coat of marl or clay and its operation ceases. Whenever the turnips begin to *anbury,* as they call it in Norfolk, their only observation is, "the land wants claying." The clay is accordingly applied at from fifty to eighty loads an acre, and the disease thenceforth vanishes.

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* The implement known by the name of Duckett's skim coulter would be the very thing for this interring system, this *undertaking* on a grand scale.

In submitting the above observations on a subject very important, but very little understood, I must repeat that I do so with considerable diffidence, because during the many years I was a farmer, I never so thoroughly investigated the subject as, with my experience of its ill effects above related, I ought to have done. I saw the disease, it is true, little or much, every year, examined the ears, found therein living worms, and as people do by flies in amber, "wondered how the devil they got there." But that was all—we kept up a sort of visiting acquaintance, but were never very intimate. Had Mr. Gorrie or Mr. Shirreff written in those days, it is not unlikely I should have been as busy as my neighbours in poring over the history of these troublesome little visiters, and prying into their family affairs; but as is too much the way of the world, I contented myself with the knowledge of the fact that the evil existed, without attempting to discover a remedy; except, indeed, by changing the seed, and that I own was to a certain extent successful. I would recommend to my friend, Mr. Charles Peppy, of Witnesham, near Ipswich, the perusal of what has been said by Mr. Gorrie and Mr. Shirreff on the subject, knowing no practical farmer better calculated to throw light thereon, in addition to the "northern lights" of these gentlemen "ayont the Tweed." He writes me thus—"we have suffered greatly from this disease, for which I fear no remedy is to be found. With us it has affected only the heavy land wheats, occasioning a deficiency of one to two coombs (four to eight bushels) an acre, on hundreds of acres. Few are aware that it is caused by a fly." Trusting that you will excuse the haste with which the above is written, and either insert, alter, or omit, as best suits your convenience or inclination, I am, sir, your obedient servant,

S. Taylon, Jun.

Country Times Office, Fleet Street,
March 15, 1830.

(From the British Farmer's Magazine.)

REMARKS ON MR. S. TAYLOR'S LETTER ON THE WHEAT FLY.

BY DELTA.

Sir,—Mr. S. Taylor's notice of the wheat-fly in your last number is a further proof of the ravages committed by this puny foe of the farmer, and of the absolute necessity there is of investigating still farther the economy and habits of the insect.

Agriculturists are under great obligations to Messrs. Gorrie and Shirreff for their history of the insect. Such knowledge is a great point gained towards the discovery of means for repelling their attack, or accomplishing their banishment or destruction. Their generation and changes through the various stages of their existence are exactly similar, it seems, to those of other flies. The eggs deposited by the perfect insect on the tender ears of wheat, and some few other graminous plants, soon change to active caterpillars and subsist on the juices of the fructification, when they receive the names of Red Worm, Red Robin, or Red Gum, provincially; and when they have passed the feasting period of their life, descend to the earth to become chrysalides, and then repose till the genial heat of the succeeding May calls them forth in their perfect form and sex, to re-produce a new progeny for the following year.

Among scientific naturalists they are called *Cecidomyæ tritici.* From the time they fall to the earth till their resurrection they are wonderfully preserved; safe in its leathery tunic, this little speck of animated organization exists without any kind of nutriment through the summer heat, and, what is still more extraordinary through the winter's wet and frost. Too minute to be detected by the naked eye, they remain an imperceptible particle in the earth till they burst from their shells in the spring.

It is only when in this inert stage of their being that any means in the power of the husbandman can be available for their extirpation. Mr. Gorrie proposes to bury them by something like trench-ploughing, which Mr. Taylor wittily calls "undertaking on a grand scale;" and, no doubt, if the pioneering powers of the insect be not very great. many might be sent to sleep, if not to the grave. To prevent the increase of those located in one field only would be an advantage, in so far as it would reduce the general stock by committing a certain number to close confinement.

Wheat stubbles are their hybernaculæ, and if very foul are usually fallowed for turnips, if turnip land; or if clean, by a pulse crop, oats, or in some highly-favoured spots, by barley. To none of these crops is the wheat-fly sensibly injurious; and if the soil be deep and not liable to injury from deep ploughing, Mr. Gorrie's advice should be adopted as the easiest way of getting rid of them, because it is only on wheat stubbles they are *come-at-able.* From their history it is obvious, that wherever they are bred they can wing their way to their food; and where they feed there they rest till the following spring. Their diminutive size and feeble powers are an indication that they cannot penetrate far into the earth; and if so, I would venture to suggest whether a liberal dressing of quicklime, well harrowed in, might not operate as a means of destruction. The chrysalides, though invulnerable to wet and frost, might suffer under the caustic action of hot lime; and even if such application in its intended hostility to the fly was not completely effectual, still its use as a general vermifuge and stimulant to the succeeding crops would well repay the expense, especially if the lime-kiln be not too far distant. Such a dressing, however, could not be applied were grass-seeds sown among the wheat.

Mr. Taylor thinks the fly is partial in its choice of food; that it attacked his spring-sown and not his autumn-sown Talavera. This, it is probable, would have happened to any other newly introduced variety, as in fact it did to his yellow lammas brought from Lancashire. Fresh seeds, or plants, from distant parts, always grow more frimly, i. e. more delicately luxuriant than native or old-established varieties, hence the preference shown by the fly. This circumstance also accounts for the favourable opinion every body had of the Talavera on a first trial. It has sunk in Mr. Taylor's estimation as, I believe, it has in that of every one else who have grown it for any length of time; a decisive proof that it had every where only a temporary excellence.

Mr. Taylor avers that crops of wheat possessing this luxuriant habit are usually produced on a rich and porous soil, and which, whether new or old varieties, are liable to blight as well as to the attack of the fly; assuming (but with much candid diffidence, however) that there must be something in such crops attractive to the fly, and also a susceptibility to suffer from blight, which last is described as a disease. He excepts the "old red Kentish," which he thinks, from its constitutional hardihood, is less subject to either disease or insects than the other varieties in cultivation, and concludes, that if wheat be grown on a tenacious and well-consolidated soil, so as to induce a slower and sturdy growth, it is likely to escape both fly and blight.

To prove that this opinion is not wholly visionary, Mr. Taylor instances the effect of claying or marling land, to banish the insect (*Tenthredo rapæ*) which forms those embossed deformities on turnips called "Fingers and Toes." This application produces, no doubt, a certain rankness of quality in the root which offends the mother insect—she instinctively knowing that such qualities are unfit to be an eatable nidus for her young. This effect of claying land has not been lost upon the gardener. When neither brocoli nor turnips, cauliflower nor cabbage could be grown to any perfection by reason of the Tenthredo, the gardens are now freed from their visits by dressing with clayey marl or with soap-boiler's waste; the alkaline quality in both substances being probably the offensive material.

Whether the blight on wheat be, or be not a disease is differently understood by naturalists. The *Anbury* is known to be an attack of an insect and not a constitutional disease. With equal propriety blight may be denied to be a disease, because it is evidently the attack of a parasitical fungus. But, says Mr. Hayward in his "Science of Agriculture," the parasite fungus which locates itself on the leaves and straw of wheat is not the cause of blight but a posterior effect arising from the cause. Blight, he says, is a disordered organization occasioned by the absorption of noxious or rank juices, which in the course of the season, "being checked by cold winds or some other casual obstruction, rupture the vessels and ooze out through little slits," and which becoming inspissated in the air, and afterwards corrupt, is then a fit receptacle to lodge the floating miasma or seeds of the fungus, and to bring them to perfection; they afterwards dying off as a black or brown powdery substance; and concludes that *"the foundation or cause of the rust or fungus is the putrifying matter discharged from the ruptured sap-vessels of the plant."*

This notion of the phenomena completely overturns all that was discovered of the rust by the intelligent naturalist employed by the late Sir Joseph Banks to investigate the matter. Mr. Bauer (I think it was,) proved by the closest microscopic inspection and magnified drawings, that it was the consequence of a seizure of a very minute species of fungus, favored by a humid state of the atmosphere, at a critical stage of the growth. If we admit that Mr. Hayward's ideas are the most correct, we have only to suppose that he had better instruments and better opportunities for observation than Mr. Bauer; at the same time we must also believe that all plants liable to be preyed on by this species of fungus (uredo) are *always previously* diseased, viz. the barberry, coltsfoot, &c. Moreover, if Mr. Hayward's opinion be just, we must also believe, that the whole crop of a country in a blighting year, such as was experienced about 1816, had imbibed noxious juices to cause the disease. Because when we have a general blight, it is not the naturally rich or highly manured fields in the valley which only suffer, but the thin meagre crops on the gravelly hills also. True it is, the crops on rich lands are more liable than those on poor and elevated situations; and single plants on dunghills, or on patches where dung has been laid in fields, are always seen disfigured by the uredo before it appears on plants of moderate growth. Still when a general blight takes place, we cannot help attributing it to the agency of a far more diffused cause than that of excessive manuring, or any other mismanagement on the part of the farmer. And what substance in nature can we conceive more diffusible than the propago or seeds of the uredo? Their inconceivable numbers and extreme buoyancy fit them for extensive dispersion, and the cellular structure of the straw furnish suitable receptacles for them to rest in and propagate.

Whether, as Mr. Taylor suspects, the character of the growth determines the attack of both the fly and the blight be so or not, remains to be ascertained by future observation; but there can be no doubt that tenacity of soil and "artificial pressure," if it be. too light and hollow, will always assist the crop, whether it may have to withstand the attack of its enemies or not.

A farmer who burns his own lime or can purchase this useful dressing at a moderate price, should seize the first opportunity to make trial of its efficacy, especially in districts where the fly is prevalent.

I have just examined this puny depredator in a friend's cabinet, and am astonished that so minute a being can be capable of causing so much disappointment to the farmer and so much loss to the nation.

I am, sir, yours, &c. Delta.

(From the Complete Farmer.)

ASHES.

Their beneficial effects as manures may probably, in a great measure, arise from the portion of alkaline saline matter which they contain; which, by its agency on, and combination with, the materials that are present in soils, may render them more soluble and proper for the nutrition of plants.

Bleacher's Refuse or Ashes, are matters that consist principally of the hard and undissolved parts of pot-ash, kelp, weed-ash, and barilla. Laid on alone, they are too stimulating; they ought, therefore, never to be used but with earth, or earth and dung: they answer well with blood, garbage, and putrid animal substances. They are generally laid upon fallows for wheat. The greatest advantage derived from them is upon clay or deep loams. Upon rushy grounds, or coarse wet meadows; they will be found particularly useful in destroying such coarse plants.

Coal-Ashes, probably from their containing a portion of calcareous matter, are found to be beneficial to stiff and sour lands, for which purpose they are successfully used in the neighbourhood of many great cities, where coal is burnt for fuel. They also open the texture of clayey grounds, and correct their tenacity and other bad qualities. The gardeners and farmers about London know their value, and make a very profitable use of them, particularly in bringing into order those grounds which have been dug for brick-earth. After spreading these ashes upon the clay bottom, they either sow horse-beans or set the early Spanish, and sometimes the Windsor-bean, in such spots; or else they lay such lands down with rye-grass, which generally succeeds well. Mr. Bradley long ago blamed the people of Staffordshire and the counties adjoining, where there are coal pits, for not improving their heavy grounds around them by manuring them with coal-ashes, which might be easily burnt out of the waste coals of such pits; and "that, wherever there are plenty of coal-pits, there can be no want of good profitable land."

And Mr. Mortimer agrees with Mr. Bradley, in esteeming sea-coal ashes as the best manure of any for cold lands, as well as the most lasting, and the fittest to kill worms. Mr. Worlidge likewise looks upon them as an excellent compost when mixed with horse-dung; and remarks, that they are a great curer of moss and rushes in moist grounds.

This kind of ashes are employed in different proportions in different places, according to the particular circumstances of the crop and the land on which they are applied. It is observed by Mr. Farey, in the twenty-fifth volume of the Annals of Agriculture, that, in the vicinity of Dunstable, they are used at the rate of from fifty to sixty bushels to the statute acre, for a complete dressing; and that they succeed well sown on clover in March or April, on dry chalky lands. They also do much good, he says, to sward land, when applied during any part of the winter or spring; but they are never used on wheat. It is likewise further remarked by the same writer, that in very dry seasons they do little service, except on cold sward, which they invariaby improve; and that on light land they require rain after being sown, in order to set them to work.

Peat-ashes are found, from long experience, to be a very good manure.

It is observed by Mr. Donaldson, in his View of the present State of Husbandry in Great Britain, that, in many parts of the kingdom, peat-earth, cut and dried in the course of summer, is the only fuel; and that the peat dug from the mosses, that are so firm as to bear cattle to tread on, is the best, both for fuel, and afterwards for manure. The ashes of what is pared from the surface of heaths and commons, by the cottagers in many parts, as about Bedford, are, he says, of little value, compared to those above-mentioned. It is probable that Berkshire is the only district of Great Britain, where peat-ashes, without mixture of any other substance, are at present generally used as manure. The ashes of peat, dug from extensive meadows in that county, have been proved, by the experience of sixty or seventy years, to be a most excellent manure, when used as a top-dressing on almost all kinds of crops; as oats, wheat, barley, turnips, clover, sainfoin, meadows, pastures, &c. The quantity used is about twenty bushels, more or less, as the condition of the land seems to require; and the price about 3*d.* or 4*d.* the bushel. To such an extent is this mode of manuring carried on in that county, that the proprietors receive two or three hundred pounds the acre, for a liberty of cutting and carrying off peat to the depth of five or six feet. It would be absurd to suppose, says he, that the peat-ashes of Berkshire are superior, as manure, to those in every other part of the island; and as their effects in that county, when applied to the soil, have been conspicuous for a great number of years, it is certainly a circumstance meriting the attention of those who reside where peat is the only fuel, to ascertain whether peat-ashes in such districts do not possess all the fertilising qualities of those in Berkshire. The experiment is easily made: all that is necessary being to keep the ashes dry, and under cover during winter; and to sprinkle them with the hand over the crops in the spring, and at the rate above mentioned.

It has been long since also observed by Mr. Miller, that these ashes are greatly bettered by being mixed with lime before they are laid on the land.

Pot-Ashes, the refuse or ashes remaining after the burning of different green vegetable matters, from which the alkaline salt called pot-ash has been extracted.

This kind of ashes has been found of great service to most sorts of land; but as they have been in a great measure deprived of their saline property, it is necessary to lay them on much thicker than any other sorts of ashes. Mr. Bradley observes, that a bushel and a half of these may be used in the room of a bushel of fresh ashes; and that they should always be mixed with some other light ingredient, which may be used in any quantity when laid on very stiff land; but, if the land be not over stiff, they may be laid upon it with less mixture. As in places far removed from the means of improvement, a substitute for common manures, that is of easy carriage, and can be had at a moderate expense, must be valuable, pot ash may be employed; for, from experiments that have been made, it appears that 200lbs. of it are sufficient for an acre of strong land. For lighter soils much less is required, if laid on by itself: on these, however, a compost of this and train or refuse oil, incorporated with mould, will be the best way of employing it. Upon strong clays and deep loams, however, it ought always to be applied by itself. When the expense of carriage is considered, pot-ash will often be found a cheaper manure than lime: and in one respect it is superior; for the union of pot-ash with all the different acids forms a neutral salt, which is in some degree useful in vegetation; whereas, when lime meets with the vitriolic acid, it is almost entirely lost to the purposes of agriculture.

A considerable part, if not the whole, of what is used in manufactures (glass excepted) may be useful as a manure, after the purposes of the different manufactures have been served; particularly in bleaching, the alkali of which will be found improved in consequence of the mucilage or oil which it has imbibed from the cloth.

Soapers' Ashes are a composition of wood-ashes and lime, remaining after the soap-makers have drawn off their lye.

These are in general a very valuable manure; but there is great difference in the quality and effects of them. Those from wood-ashes are the weakest sort, as, wood-ashes being very light and spongy, their salts are soon dissolved, and extracted by the ley; so that there remains but a very slight portion of salt in the ashes. But when the soap-boilers make use of kelp instead of wood-ashes, the kelp, from its being of a harder nature than wood-ashes, is not so easily separated and dissolved by the lye; consequently much more of the salt remains in the ashes. The soap-boilers also make use of another kind of pot-ash, called barilla, which is imported from Spain and other places in large lumps, and which are much harder than common pot-ash; and though they break this sort very small, and sometimes screen or sift it, much more salt remains than when pot-ash is employed; so that the ashes from barilla are for the most part stronger than any other; and if the same quantity of them was laid upon land as is commonly the case with the wood-ashes, they would burn and destroy the crop. Farmers should therefore use soap-boiler's ashes with caution till they know their quality and strength. Wood-ashes and pot-ash are used in various places for making soap; but in and near London, very little of any thing but barilla is employed. The ashes from the barilla are a strong rich manure, and sold at 5s. per cart-load. They are not now, however, so good as they were formerly, the soap-makers having found means to extract more of their salt from them; as they also take the salt from the ley, which was formerly rather superior to the ashes as a manure, and to be had for nothing, being all thrown away as useless.

This excellent manure was first used by the Flemings with great success. Two loads of these ashes are sufficient for an acre of arable land. They should be laid on the ground when the weather is inclined to be wet, in order that the rain may more easily dissolve and wash them in.

As soapers' ashes principally consist of lime, which is used by soap-makers to deprive the alkaline salts of their fixed air, the addition of lime to the ashes is unnecessary. They are generally made into composts with earth and well-fermented dung, in the proportion of two loads of dung to one of earth; the ashes are then added, in the quantity of one load to ten of this mixture, turning and incorporating the whole completely.

The quantity necessary for strong clays or deep loams is ten cart-loads to an acre. If the dung has been well fermented, perhaps the most profitable way of using this compost may be as a top-dressing harrowed in with the grain; taking care, however, that the caustic quality of the ashes be properly blunted by a sufficient mixture of dung and earth.

These ashes, when beat small, may be made into a rich compost with refuse oil and earth, and used as a top-dressing for young crops. They will destroy slugs and vermin of every description, and are therefore highly valuable on lands where the early wheat is injured by the worm. Laid upon grass-lands in the end of autumn, this manure produces a deep verdure during the winter, and an early vigorous vegetation in the spring; it is therefore particularly calculated for cold wet pastures.

A writer in the *Museum Rusticum* observes, that he has for many years past received great benefit by using soapers' ashes as a manure, with which he almost constantly dresses his wheat-lands; but never uses it alone, on account of its hot burning quality. His method is, to make a large heap of dung and earth, that is, two loads of earth to one of dung, placed in alternate layers to rot. After this has undergone a strong fermentation, he causes the whole heap to be turned and well mixed, leaving it for some time longer to mellow.

He then procures the soapers' ashes, and mixes them with the compost, in the proportion of one load of ashes to ten of the compost, leaving, for some time, the whole to mellow together; and when wheat-seed time comes, about the latter end of September, he causes about ten cart-loads of this rich compost to be laid in little heaps on each acre of the land he intends to sow with wheat; this manure is immediately spread, and, after sowing his wheat broad-cast, he ploughs it in together with the compost

The advantages resulting from this practice on stiff soils, he says, are many; particularly if the farmer be careful in preparing his tilth, as he will have a clean crop, which is a matter of no small consequence to him.

He has also tried this manure on lighter lands, and found it to answer extremely well. provided it have lain a considerable time in the compost heap, to mellow, and lessen its natural heat or causticity; but it agrees best by far with clayey soils, and in such is worthy of being recommended as an excellent dressing for wheat-crops.

(From the New England Farmer.)

ENGLISH AGRICULTURE.

The English carry agriculture to great perfection. Every spot of ground capable of cultivation is improved. Wherever I have been, the fields are generally small, enclosed by hedges, and made perfectly smooth, by means of cast iron rollers. Numerous trees are left to grow around the hedges, and scattered over the fields. These are so nicely trimmed, as to add greatly to the beauty of the country. Not a weed is suffered to grow. The crops all look well, and are much more productive than ours. The cattle and sheep feed on grass up to their knees, and look, as we should say, fit to kill.—The slight enclosures that keep them in their pastures, would be but a poor protection against our lean, half fed, unruly animals. Here the cattle have no need to break fences. They have food sufficient within their own domains. I came here under the impression that the country was bare of trees. On the contrary, I find it better stocked in this respect than the thick settlements of our own country. We wantonly destroy trees as if they were of no value: here they are planted and nursed with as much care, as though they bore choice fruit

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(From the New England Farmer.)

Product of the Newport Almshouse Farm, 1829. —30 tons hay; 200 bushels corn; 675 do. potatoes; 379 do onions; 2232 bunches do.; 58 bushels barley; 75 do. oats.

The product of the farm exceeds that of any other year, and is yearly improving in walls, buildings, &c. About two acres for an orchard have been walled in, in which trees will be set this season. There is at present, 55 acres cultivated; 57½ in meadow.

HORTICULTURE.

(From the Southern Agriculturist.)

CABBAGES.

For these a seed bed should be prepared. The ground should be well manured, broken up, and made as fine as possible. It should then be divided into small beds of four feet width, which will give much facility for weeding the young plants; across these, drills should be drawn about an inch deep and three inches apart, into which the seeds should be scattered very evenly and *thin*. Most persons err in sowing these too thick, in consequence of which the plants are lost, especially if it be in summer. In the spring of the year and the autumn, the seed bed will need no protection, but during the summer months unless this be afforded them, the germinating qualities of the seeds, however good, will be destroyed by the sun, and even if, from a combination of favorable circumstances, they germinate and come through, they will be very liable to be killed. The best mode of protecting them with which we are acquainted, is to make a slight scaffold over them, about three feet high, and on this spread a number of green bushes, sufficient to shade the ground completely. The density of this shade will continue as long as needed, which will be during the germination of the seeds. All plants, as soon as they are up, require heat and light; the first will be abundantly afforded by the temperature of the soil and atmosphere, without the direct influence of the sun. which, as we before stated, would prove at this time injurious. The height of scaffolding will permit a sufficient quantity of reflected light to pass to the young plants, and as they advance in their growth, and require more of both of these, the demand will be answered by the falling of the leaves from the branches used as a covering—thus, gradually affording as much heat and light as they require, until the whole having fallen, the plants are exposed to the rays of the sun—a few dried branches alone intervening, which may, or may not be taken away. The seeds for such plants as may be required in spring, ought to be sown late in autumn: should this not be done from any cause, they may be sown during the winter; but they run much hazard of being killed during some of the cold spells, especially when very young. A scaffolding should therefore be erected over them, but nothing placed thereon. Hay, straw, or even green bushes, should be provided, and on the approach of cold weather, they should be thrown on the scaffold, which ought not to be more than eighteen inches high; this should be removed on the recurrence of mild weather. The plan of protecting them by throwing the straw &c. over the plants, is bad; as, in the first place, this is not always effectual; and, secondly, very many of the plants are destroyed by it. The sowing of the seed should take place six weeks or two months previous to the time intended for setting them out, as they will take fully that time to reach a proper size.

The varieties commonly grown among us, are the Early York, Sugar-loaf, Battersea, Green-glazed and Drum-head, which mature in the order in which they are here named. These are all excellent, but we would prefer the three last for the plantation garden. Although cabbages can be had at all seasons of the year with us, yet they are in their greatest perfection during the winter. Those grown for summer use, are generally very indifferent, and scarcely repay the trouble of raising them. For the winter, the Battersea and Drum-head should be chosen, but for the late spring, summer, and early autumn crops, the Green glazed only, can be used with advantage; at those seasons of the year cabbages are subject to the destructive depredations of worms which prey upon their leaves, and render the whole plant unfit for use. The Green-glazed cabbage, from some cause or other, is entirely exempt from this, and forms a strong contrast, exhibiting its large broad leaves entire, while those of every other variety are completely riddled and more resemble honey combs than leaves But this variety is coarse, and not to be recommended when the others are to be had. We therefore suggest the propriety of sowing the Green-glazed cabbage seeds in February, March, April, May, June and July, and transplanting them as soon as they are large enough. They will be fit for use in the months of July August, September and October, and will continue good during the winter if not used. During all of the other months, the Battersea and Drum-head should be sown. The seeds sown in September and October, which will be for the first spring crop, ought to be from Europe—those of American growth, will send out seed stalks early in the spring, sometimes without heading, whilst those from English seeds, will cabbage and remain firm. Those intended for summer and autumn use, should be from American seeds, as plants raised from European, cannot at those periods withstand the heat of our climate.

The preparation of the ground for the crop, next demands our attention. It should be ploughed and harrowed, until it is brought into a fine tilth: let the plough then lay off furrows three feet apart, and as deep as can be done by the plough passing twice through each, into this the manure should be spread, in considerable quantities, as the cabbage can scarcely be manured too highly, and well repays the quantity allowed it. Animal manures are undoubtedly the best; but we have used a compost made of animal manure and marsh mud, with very great effect, and the cabbages were superior to those where the mud had not been used. After the manure has been spread, the plough should return and cover it, by throwing a furrow on each side. If it is intended to cultivate them in ridglets they may be left in this state, but if level surface be preferred, the harrow should be passed over the tops lightly, taking care not to disturb the manure buried beneath. The plants should be removed from the seed-beds, (selecting the largest,) and transplanted on these rows, at the distance of from two or three feet apart—this distance must be regulated by the variety and the richness of the soil, or quantity of manure used. Should the earth be dry, water should be poured into the holes where the plants are to set, which is better than watering them after they are planted out. Except during the winter, they should be shaded until they have taken root, by sticking a bush to the south of them. The after culture consists in keeping the ground very loose and clear of weeds; if they had been planted on ridglets, they may be worked by the plough which should run as near the plants as possible throwing the earth from them; it should then immediately return it to them, which will leave the ground in a very loose state—near to, and between the plants on the ridglets, the hoe must be used. If the plants have been set out on a level surface, the cultivator may be used with great success, and if two of the lines only be used at first, they may be run very near, so as to leave but little work for the hoe to do. These workings may be repeated whenever it is thought the plants require it. At each ploughing a little additional earth should be thrown to the sides of the ridglet; and the oftener these workings are repeated the better, as few plants will so well repay this frequency of work. The Early York, will require at least two months from the time they are transplanted, before any of them will head. The Battersea and Sugarleaf, about a fortnight more, and the Drumheads about three months. This knowledge enables us to judge of the proper time for setting out each, which should be the length of time above stated, prior to the time they are wanted. For a winter crop, it is best to sow the seeds *on poor ground,* in April, and let them there remain until the months of July and August—they will be much hardier plants than those raised from seed sown in June and July. The most eligible months for transplanting cabbages, are July and August, for winter; October and November, for early spring, and March for late spring crops.

(From the New York Farmer.)

PRINCE'S LINNÆAN BOTANIC GARDEN,

At Flushing, Long Island.

This garden was regularly established at the village of Flushing, ten miles from the city of New York, in the year 1750, by William Prince, father of the present proprietor.

In the year 1776, on the 29th day of August, the British troops took possession of the village of Flushing, great numbers of troops were stationed in the neighbourhood, and at one time, ten thousand were marching into the place in one day. Sir W. Erskine who commanded the army that took possession, sent a guard of three men immediately for its protection. The guard continued its services for six weeks, when order was again established, and no injury was done. The nursery at that period was completely filled with trees of the finest growth and saleable size, but all intercourse being cut off with the continent, the trees were disposed of for hoop poles to the coopers in New York. Mr. Prince was enabled still to continue his business, and an extensive sale of American native trees and shrubs to the British and German officers to send as presents to their friends in England and Germany, fully compensated him for his losses, particularly of fruit trees.

The garden comprises, with the nurseries attached to it, upwards of forty acres, and contains about 10,000 species and varieties of plants. Ten acres, on the south-west side of the principal road through the village, comprise the old American Nursery, devoted to fruit, ornamental, forest, and flowering plants, of a size suitable for sale. The remaining thirty acres, on the opposite side of the road, with the exception of the ground used by the family dwelling, and that of Wm. R. Prince, are entirely devoted to the general and miscellaneous purposes of a Botanic and Horticultural garden.

The green-house department comprises six extensive hot-houses, averaging each from 50 to 80 feet in length, and double the usual depth—the whole containing from 20 to 30 thousand plants in pots.

Some idea may be formed of the estimation in which our native forest trees are held in Europe, by the following quantities of seed annually sent across the Atlantic, principally to Great Britain, France and Germany, by Mr. Prince—200 bushels of acorns, 40 to 50 of the seeds of the Tulip tree, or White wood, 20 to 30 of the different kinds of maple, 20 to 30 (clean and in balls) of Pines, 10 of Cypress balls, 10 to 12 of Ash, 12 to 15 of Elm, 20 to 25 of Red Cedar berries, and considerable numbers of Dogwood, Sassafras, Birch, Magnolia, and others. The Magnolia, the beauty and pride of the American forest, is greatly admired by Europeans.—Mr. Prince forwards about one bushel of clean seed, which he collects from standard trees in his own garden. For this seed he obtains eight dollars per quart. The introduction and acclimation in France, of American forest trees, suitable for timber and fuel, is held by enlightened landholders and statesmen of France, as a subject of no small national importance.

The propagation of plants by cuttings, layers, inoculations, and other methods, is under the special superintendence of Mr. Alfred S. Prince. The number thus annually increased, is from 70 to 100,000. Among these are about ten or fifteen thousand peach trees. On each side of the broadest walks, specimen trees of foreign importation are planted out, to furnish grafts for propagating the different kinds. Squares of trees are also formed for the same purpose, and for testing the quality and identity of the fruits. An extensive piece of ground is planted with native herbaceous plants systematically arranged, and labelled with painted sticks. Those that are natives of the more southern states, have frames placed over them in winter for their protection. Many advantages arise from having a division of labour—particularly so important a branch as the propagation of plants, under the management of one person. It tends to prevent mistakes in selling, and to insure identity, by concentrating the efforts and knowledge of the superintendent, who is expected to become extensively read and versed in the physiology, anatomy, and synonymes of plants.

Mr. Prince enumerates in his catalogue, near two hundred kinds of native and foreign peach trees, "selected on account of their size, flavour, or time of ripening, from among the best kinds imported from Europe, as well as from such as have originated in America."

Mr. P. considers the disease called the *Yellows*, to be contagious, by means of the farina of the flowers. This disease, it will be recollected, is far more destructive than the depredations of worms and insects. Having three trees in a row, he found one side of one of the outside trees to be affected by the Yellows. On the succeeding year, the side of the middle one next to the diseased part, became affected—and thus in succession until all three were entirely diseased and dead.

The effects of the disease on the trees, are, to give the leaves a yellow colour, and to cause small bunches of sickly stems to shoot out in various parts of the branches. The only remedy, if Mr. Prince is correct, is to cut down the tree on the first appearance of the disease. We believe this is the course pursued by several in this vicinity, who are very successful in the culture of this fine fruit.

HORTICULTURAL SOCIETY OF PENNSYLVANIA.

Representations from various quarters have been made to the Pennsylvania Horticultural Society, of the extensive and increasing ravages of insects upon the fruits of our country, particularly the Plum, Peach, Apricot, Nectarine and Morello Cherry. These insects attack and destroy the fruit before it attains to maturity; and in many places, great numbers of fruit trees of this description, only stand to disappoint the hopes of the cultivator, and to render his care and labour entirely useless. This Society, being fully sensible of the great importance of these delicious fruits, not only to the comfort, but to the health of the people, and particularly to the inhabitants of large and populous cities; and being impressed with a belief, that if means can be devised to destroy these insects, fruits, which are now so scarce, as to be attainable only by the affluent, will be so abundant, that all classes of the community may enjoy them; have thought that they could not perform a more useful or acceptable service to their fellow citizens, than to seek, in the most efficacious manner, for the best means of destroying these foes to our health and enjoyment. This service. in the opinion of the Society, will be best performed, by offering such suitable reward for the discovery of an antidote to the evil, as will stimulate ingenuity, industry, vigilance and attention to the best exertions. To do this effectually, it is requisite to ask the assistance of their fellow citizens, in uniting with the Society, to raise the necessary funds, that a suitable premium may be offered for this important discovery.

The Society therefore respectfully suggest, that all persons, who are willing to promote this interesting national object, should subscribe such sums as they think proper, upon the pledge of this association, that the funds so raised shall be faithfully applied, and that no payment will be made except for such a discovery, as in the judgment of the Society, will afford a complete and effectual remedy for the evil. It is proposed that the subscriptions to be made shall be in sums not less than one dollar; and that two thousand dollars be raised for this object.

By order of the Society.
J. R. Ingersoll, *President.*

[Subscriptions received by the Editor of the American Farmer.]

FALL SOWING OF SEEDS.

Cabbages, Parsnips, Carrots, Spinach, and Onions are sowed to the best advantage in the fall, when it is desirable to get them early the next season. Miller's Gardener's Dictionary says, "to cultivate parsnips, *sow the seeds in autumn*, soon after they are ripe; by which means the seed will come early the following spring, and let the plants get strong before the weeds will grow so as to injure them. The young plants never materially suffer through the severity of the season."

Elder Leaves, put around the roots of peach trees, is recommended as a perfect antidote for the injury arising from worms.—*N. Y. Farmer.*

Several persons have been convicted for robbing an orchard in Bridge street, in Salem, (Mass.) and have been fined ten dollars for their offence.

A boy named Perez Wade has been sentenced in Plymouth, (Mass.) to 6 months imprisonment for stealing fruit; it was a second offence.

RURAL ECONOMY.

FOR THE BEST BUTTER.

A first premium of one hundred dollars,
A second premium of fifty dollars,

Will be paid by *the Treasurer of the Massachusetts Society for promoting Agriculture*, for the best *butter*, from any state in the Union, exhibited at Boston on the second day of December 1830.

A sum raised by private subscription has been placed in the hands of the Trustees of said Society by a number of the most respectable citizens of Boston, to pay the above premiums.

The object proposed, by procuring, if practicable, an exhibition at Boston of the best butter made in any of the states, is to promote improvement, *near home*, in the process of making and preserving an article of very general consumption.

The country at large will also benefit by so extensive a competition for the prizes.

The quantity offered by any one person for premium, to be not less than *three hundred weight*—put up in new tubs or firkins, with the competitor's name and place of residence marked thereon. Any remarkable attention to nicety in the manner of putting up the butter will not escape the notice of the examining committee.

As a further encouragement to become competitors, all persons who send butter will have an opportunity, on the day after the exhibition, to sell at public auction without expense. The most liberal price may be expected for a large quantity of good butter, put up for family use, as there is, probably, no market in the Union better than that of Boston.

All parcels intended for the premium, agreeably to the above notice, must be sent on or before the first day of December, to the Agricultural Warehouse, care of Mr. John B. Russell, No. 52, North Market street, Boston, and on Thursday the second day of December at 10 o'clock, A. M. a committee of competent judges, to be appointed by the Trustees, will attend to inspect the butter, and to award the premiums, which will be paid in the afternoon of the same day, at the same place, by the Treasurer of the Society; and on the following day, all such parcels as have not been previously disposed of at private sale, may be sold at auction by an auctioneer appointed by the Trustees, and reasonable public notice will be given of such sale.

N. B. Persons intending to be competitors are particularly desired to notify such intention by letter, addressed to Benjamin Guild, Esq. post paid, Boston, several days previous to the exhibition, that arrangements may be made accordingly.

Rich'd Sullivan,
Peter C. Brooks,
John Heard, Jr.
Gorham Parsons,
Committee of Trustees.

Boston, Sept. 1830.

BEES.

The attention of the public has been of late often called to the culture of bees. My own experience and what I believe to be important improvements in their management and in the construction of their hives, have been such as to enable me to make statements which have gained some regard from intelligent keepers of apiaries, which may deserve still more than they have received. I have practised the making of hives 14 inches square by 7 deep; the top perforated by three round holes an inch in diameter, which are to be placed over each other in order to remove the top hive without disturbing or destroying the bees.

The present year I had swarms from six hives. One came out on the 5th of June; I put it into a hive over which I placed another; and at the same time put an empty hive upon that from which the swarm had issued. On the 31st of July I took off my top hives: that from the before mentioned swarm contained *thirty-one* pounds of good honey, and that which had been put upon the old hive *twenty-two* pounds; making *fifty-three* pounds of pure honey, and my six hives yielded *one hundred and eighty-nine pounds.*

I added an empty hive to each, leaving a sufficient quantity of honey in them severally for the winter, and still, without impairing their winter supply. When these top hives are removed this fall, they will be found to contain much honey.

Ebenezer Withington.

Dorchester, August 14, 1830.

LADIES' DEPARTMENT.

GARDEN OPERATIONS FIT FOR LADIES.

We would wish every lady who lives in the country not only to be fond of botany, to collect specimens, dry them between blotting paper compressed with a bag of hot sand, and then gum them into a leger indexed according to the natural system; but we would wish them to devote a portion of every day, in favourable weather in open air, and in unfavourable weather under a veranda or in a green house, to some of the lighter operations of gardening, for health's sake, and for giving a zest for in-door enjoyments. Cutting out weeds with a light spud, which does not require stooping; stirring the surface with a light two pronged spud, the prongs of which need not be much larger than those of a carving fork, and the handle of willow or poplar, or cane not thicker than a fishing rod; and pruning, with the sliding shears, shrubs from three to seven feet high, are operations which do not require stooping, and which may be performed during the hottest sunshine, by the use of an Epinal hat, or a broad brimmed straw hat, or other light broad brimmed hat of any sort. Thinning out and tying up herbaceous plants and low shrubs; tying up climbers and twiners, and tying the shoots of trained trees to trellises or to nails, with eyes fixed in walls; cutting off decayed flowers, flower-stems, withered roses, and dead points of shoots and leaves; and pruning shrubs under three feet high, require stooping, and are fit operations for mornings and evenings, and for cloudy weather. Watering is best performed in the evening; and if any lady wishes to do this in a masterly manner, she ought to have one of Siebe's rotatory garden engines, fitted up with a wheel and handles like a wheelbarrow: this she may wheel along the walks; and, by an operation not too severe for a healthy young woman, and which would add greatly to the strength of her arms and the tranquility of her nights, throw the water from thirty to forty feet in every direction. We would much rather see ladies at these operations common to all countries, than see them shifting and otherwise working with sickly hot house pots, which cannot be done well without more or less affecting the hands. Watering with a light or small sized Reid's syringe, or Macdougal's syringe, would not, perhaps, be an unfiting operation for a lady; but the best of all may be watering with a neat little green flower pot, the supply of water being near at hand; and obtained from a cock, on no account by dipping, or carried to her by some attendant friend or maid. The care and watering of neat little alpine plants in pots, is what most ladies are very fond of; and one of the principal enjoyments of city ladies, who know plants only or chiefly as pictures, consists in performing this operation. The plants to be presented to such amateurs ought to be plants that require water at least once a day, and that grow fast to require tying up, and make frequent dead leaves to require picking and dressing. The principle is, something to be taken care of, and to care for and depend on us; something that requires labour, the beginning and ending of all improvement and enjoyment. Having said so much respecting garden operations fit for ladies, we shall add that we should feel extremely obliged to any lady living in a district much in the trade of working in straw, if she would undertake to get us a few Epinal hats manufactured, and sent to Cormack and Sinclair's Viridarium for sale. These hats do not require the straw to be platted, and they would come, we think, exceedingly cheap, and fit both for rich and poor. We will send our pattern hat to the first lady who writes that she will undertake this service for her country-women. [*Loudon's Mag.*

(From the Salem Gazette.)

HOW TO PREVENT DWELLING HOUSES BEING HAUNTED.

Messrs. Editors.—Many people whose circumstances might enable them to enjoy even more than a common portion of domestic felicity, are rendered miserable, by reason that the houses they live in are *haunted.* A fiend, of a most frightful aspect, enters their bolted doors, stalks through their kitchens, their parlours and their bed chambers, making frightful noises—sometimes hoarse, sometimes shrill; overturning chairs, the tables, the crockery, &c. and throwing every thing into confusion. The name of this foul fiend is *Domestic Discord;* and it is of that species of demons which when once having obtained strong possession, is almost impossible to be cast out. Therefore I shall propose means to *prevent* the evil, rather than remedies for it in its inveterate stage of existence.

Before giving your hand in marriage, examine critically the character of the person with whom you propose forming this important connection; and prefer those qualities which will *wear well,* to such as are merely showy. A fine face, a genteel air and figure, a charming voice, ready elocution, quickness of wit—however attractive—are poor substitutes for sound sense cultivated by useful education, prudence, integrity, benevolence, together with the residue of the train of domestic virtues.

Expect not unalloyed felicity in the marriage state. Such an unreasonable expectation must ever prove the parent of disappointment. If you think your bride an angel, or that the man who gives you his hand in marriage will through life act towards you the part of a hero in romance, a few years, perhaps a few months or weeks, will show you your mistake; and the never failing disappointment of such romantic expectations tends to produce coldness, alienation, and bitterness of mind. The angels "neither marry, nor are given in marriage;" this kind of contract and relation is between mere mortals, who, at best, have some failings which must be overlooked or patiently borne.

As before marriage, you cannot be too critical, afterwards you can hardly be too candid in your judgment of each other. If you find some unexpected flaws in temper, or foibles in character, assiduously endeavour to cure them, not by reproaches, but by all the winning arts of prudence and benevolence; or, if they should prove incurable, bear them, as much as possible with good humour. Meanwhile look steadfastly and chiefly on the bright side of character; and see whether the good qualities do not balance, or even outweigh, the faulty ones. Your wife, perhaps, is peevish in her temper, and sometimes scolds; but if she is neat, industrious, frugal, faithful to all your interests, you have more cause for self-congratulation, than for murmuring. Perhaps your husband is hasty and choleric—when he uses passionate expressions towards you, let not the law of kindness depart from your tongue, but requite them with mild and soothing words: if you be yoked with a fool, an habitual drunkard, or an unfeeling brute, all this will not avail, but if your husband be a man of understanding and sensibility of heart, by patience and good humour, on your part, you will be able to calm the tempest, and soothe the asperities of his mind.

Ever prize the *chain of domestic friendship* as the choicest of all your household furniture; frequently examine every link; if any should grow weak, strengthen it; should any happen to gather rust, burnish it till its lustre be fully restored; so will you shun the grievous calamity of many, *that* of living in a *haunted* house.

MISCELLANEOUS.

ACCOUNT OF DAVID WILSON.

This singular individual was one of the earliest emigrants to Kentucky.—From the time of his settlement in the country, till within a few years past, he resided a few miles south of Port William at the mouth of Kentucky river, on the waters of Mill creek. The place of his abode and his style of living are not more remarkable, than the character of the individual himself; and all I could learn of and concerning him, are in perfect harmony and good keeping. The habitation in which he spent so many and happy days, was composed of round poles and Kentucky mud. It consisted of two apartments, simply, with no out-house or cellar. During his residence in this singular place of abode, he became the husband of five wives, and the father of forty-six children.

According to his own account of himself, he was born in New Jersey, in the year 1728. He is in height about five feet six inches. His muscular frame and strength of constitution, seemed to have defied the decay of years, or the hardships and buffetings of a backwoods life. The scientific and curious have examined the conformation of this singular being, so far as practicable, and they represent his ribs, unlike those of his fellow mortals, separate and distinct, but as united together, forming on each side a solid sheet of bone; in short, that the vital part is safely deposited in a "strong box," defying all attacks of foes from without.

At the age of 96, he was in the enjoyment of entire health; his teeth all sound, his weight about 160, and his muscular strength truly astonishing. He never shook hands with an athletic man, but he gave him such a grip that he was fain to beg for mercy. At that advanced age, he could perform more labor than ordinary men could in the prime of life. His neighbors mention as a proof not only of his good constitution, but of his undiminished activity, that at his advanced age, he would leap from the ground, and crack his feet together, with the agility of a boy of sixteen.

Some five or six years since, he removed to Indiana, there to build himself a new habitation, plant a new colony, and become the father of a new race. He is now living near Versailles, Ripley county, Indiana, with his sixth wife, and has two children of the new stock.

Education is a companion which no misfortune can depress—no crime can destroy—no enemy can alienate—no despotism enslave. At home a friend—abroad an introduction—in solitude a solace—and in society an ornament. It chastens vice—it guides virtue—it gives at once grace and government to genius: without it what is man? A splendid slave, a reasoning savage.

It is stated in a New York paper that women were found by a benevolent inquirer, making duck trowsers at *four cents* a pair, and *cotton shirts* at *seven cents* a piece!

Is it possible, said a countryman on reading this, that the New York ducks wear trowsers! and the shirts were for the drakes no doubt!! This is amazing—it beats the very dandies.

EPITAPH

On Thomas Kemp, hanged for Sheep Stealing.

Here lies the body of Thomas Kemp,
Who lived by wool, but died by hemp;
There's nothing would suffice this glutton,
But, with the fleece, to steal the mutton;
Had he but work'd, and lived uprighter,
He'd ne'er been hung for a sheep-biter.

THE FARMER.

Baltimore, Friday, Oct. 8, 1830.

POTASH—ENQUIRY.

Mr. Smith: *Cambridge, E. S. Maryland, Oct.* 6.

I have for several years contemplated the establishment of a Potash Manufactory, as a very profitable and fit associate with agriculture. A year ago, I made a few pounds of "potash," and as much "pearlash," both of excellent quality. On this small scale, I had no difficulty; but on a larger one I am quite at a loss, as to the fixtures; and my present object is to make the inquiry through your valuable paper.

I know there must be a wooden cistern for the *lixiviation:* I am aware, too, of the necessity of iron evaporating pans; but I am wholly ignorant of the most eligible size, and structure of either, and of the most suitable and economical laboratory, and furnace, and the arrangements in general, for an establishment on a moderate scale, for a farmer; I would wish to know, too. whether the mass when evaporated to dryness is fused in the same vessel? and whether for "potash" *fusing* is necessary at all? also whether the cost and trouble of converting "*potash*" into "*pearlash*," and the necessary loss of weight, are compensated by the difference of price? how much will a cord of oak wood produce? whether it is put up for market in barrels? how much in weight, a barrel will contain? and what is the usual price?

An answer to these, or even some of these inquiries, and such other points, as may be thought necessary for the process to be well executed, from any of your readers, who may have it in their power, will be highly estimated by a large class of citizens, and most especially by J. E. M.

—

We are able to say a few words by way of answer to the queries of our respected correspondent, and but a few. It is hoped some of our friends in the north will furnish us a detailed description of a potash establishment, and of the processes of manufacture. We have often seen the potash factories in the north part of New York. but, not conceiving that it would ever be of any use, omitted to qualify ourselves for giving such an account of them as is now desirable. In all the cities and villages of New York, "*potash kettles*" are kept for sale at the hardware stores. They are generally in form, pretty exact hemispheres, calculated to contain from sixty to a hundred gallons. They are of cast iron. about an inch thick, with projections on the outside for their support in the mason work. From one to half a dozen of these kettles are set in a furnace, and as many furnaces are erected as may be wanted—all in the plainest possible manner. They are filled nearly full of ley, the process of evaporation is begun, and the kettles are kept supplied with fresh ley by a small stream from a conductor passing over them. As the process proceeds a ladle is used for stirring the liquid, and as salts are found in the bottom of the kettles they are taken up by the ladle and conveyed to a reservoir. After a sufficient quantity of salts has thus been obtained, they are put into "melting kettles" for fusion, or "melting down," as it is called. This is an interesting process, and generally attracts the attention of the neighbouring people, who come from considerable distances to see it. When this process has once been commenced, it is continued till completed, night and day. The melting kettles are believed to be different from those used in the boiling, though of the same construction: but we are unable to say in what they differ. After the process of fusion, the salts are allowed to cool, when the mass is broken up and packed into barrels for sale. Each barrel we believe contains about 400 lbs. The cisterns for lixiviation, called "*leach-tubs*," are sometimes in the form of inverted cones, and made by coopers with hoops and staves; sometimes they are made square, for which purpose quadrangular frames are erected of scantling or joist. a small one for the bottom and a large one for the top, and the staves fitted to them. They generally contain from five to ten hogsheads. These leach-tubs are arranged in rows convenient to the kettles, and are not necessarily under cover. The only building used at the works we have seen, is a tight roof, supported by posts. to cover the kettles. To supply the leach-tubs with water, a high pump is used, with a simple conductor passing over the row of tubs with holes in it to let water into each. The price of potash in New York on the 1st October was $5.50, and that of pearlash $5.75 per 100 lbs. We repeat that this is not pretended to be more than a crude sketch, drawn from memory, and must of course be very imperfect, both as to detail and fact; and we shall be obliged to any gentleman who will furnish a correct one.

A Noble Apple.—Mr. Wilkes, the nurseryman and gardener, has presented to the Editor of the American Farmer, one of the most beautiful apples he ever saw. Mr. W. was walking in his nursery a few mornings since, and observing a single apple on one of the young trees, touched it, when it fell into his hand. Although its size and weight are sufficiently remarkable, measuring 14 inches in circumference and weighing one pound two ounces, they are lost in the admiration excited by its exceeding beauty. It is without speck or blemish, of a very light lemon color, with a slight blush on one side; of a somewhat flat form, perfectly circular, the eye and stem deeply sunk, the surface perfectly smooth, and the skin quite transparent—indeed the apple appears to have been made of wax. Wishing to ascertain whether it was as firm inside as it is beautiful without, we tried its specific gravity, when it displaced one pint and half a gill of water. leaving a small part exposed; and on sinking it entirely, it displaced half a gill more, clearly proving its perfect soundness and solidity. We have not yet been able to ascertain its specific name—it is believed from its form not to be a "monstrous pippin," and its beauty certainly entitles it to a more pleasing cognomen. By the way, there are many things in friend Wilkes' nursery, green house and garden, well worthy of public attention.

Pomegranates.—A much respected lady has complimented the Editor with three fine pomegranates, taken from a tree which ripened one hundred and twenty three. They are fully ripe, and one of them measures nine inches and a quarter in circumference. The beautiful tree which bears this fruit, is cultivated more for ornament than fruit, being loaded with beautiful scarlet flowers and fruit at the same time, though even the latter is worthy of attention when a proper situation can be given it. When protected by a wall on the north, and by a covering of straw during the inclemencies of midwinter, the pomegranate will ripen its fruit in tolerable perfection.

Ploughs.—Our agricultural friends will not fail to notice the cut of McCormick's plough on the last page. It was taken from a beautiful model by Mr. Horton the Engraver, and is creditable to his skill. We think manufacturers would do well to give *likenesses* of their ploughs in this way, as it would enable farmers to judge of their excellence at once. Ploughs of this model are kept for sale at Sinclair and Moore's in this city.

Philadelphia Market, *October* 2.

Flour and Meal.—Sales of 3000 barrels superfine flour were made in the early part of the week at $5.12½ a 5.25; the stock being much reduced holders again demanded 5.25, at which price about 900 bbls. have since been taken for export. Sales of rye flour at 3.62½ a 3.65. Early in the week 104 hhds. Corn meal sold at 12.75, and 40 hhds. at 13, subsequently 174 hhds. have been sold at the latter price, and 100 barrels at 3.

Grain.—But few transactions in wheat this week, but last week's prices have been obtained for prime quality. Corn has come in sparingly, and met with ready sale during the week and improved in price towards the close; sales yesterday at 53 a 54 cts. white, and 56 cents for yellow. No change in rye.

Seeds.—There is a considerable demand for clover seed, and sales of 500 bushels new seeds at 5.50 a 5.65 per bushel.

Boston Market, *Oct.* 2

Flour.—The transactions have been chiefly confined to the usual demand for consumption, which has been supplied at prices corresponding with our last quotations; some parcels of Genessee have been taken for shipping, amounting to about 1000 bbls. at $5½ a $5¾ per bbl. Baltimore, Howard street, per bbl, new, 5.75; Do. wharf, new, 5.37½.

Grain.—The market for Southern Corn has sustained some improvement on our last reported prices; the arrivals have not been large, and prime white has been sold at 60c. and yellow flat 59 a 62c; Northern is selling at 66 a 66½, and prime heavy Oats 35 a 36c. per bushel. No cargo sales of Rye and supplies limited.—*Courier.*

Latest Foreign News.

By an arrival at New-York we have intelligence from England to the 27th August, the most important item of which is that announcing the opening of the West India trade to our commerce. A letter from Liverpool, published in the New-York American says:

My dear Sir:—It may be worth the postage of a letter to you, to know that the West India question is settled. The President is to issue his proclamation in conformity with the last act of Congress on the subject; and on its arrival in this country, the Order in Council of the 27th of July, 1827, (issued you recollect in Gallatin's teeth) will be abolished, and the act of Parliament of 5th July, 1825, which opens the West India trade to other countries, will be extended to the United States, and all discriminating duties will be abolished. There is no treaty come, or probably to come; but as we understand it, a communication from the British government importing that if, on the receipt of the despatch here, the President of the United States shall issue his proclamation, giving effect to the act of the last Congress, the direct trade between the United States and the British West Indies shall be renewed, upon the terms stated in that act.

Charles X. had taken up his residence at Lulworth Castle, Dorsetshire, where he would remain during his stay in England. Prince Polignac was arrested, and remained in prison at La Manche. The general aspect of affairs in France, indicated the return of peace and good order. As was expected, the harvest in England, instead of being injured by bad weather, bid fair to be very plentiful, and grain was declining.

English Markets.

Commercial letters were received from Liverpool, to August 26th inclusive, on which day the sales of Cotton extended to 3000 bales at steady prices, viz: Uplands, 6¾ a 7 5-8. 600 at 7 1-8; Orleans, 7d a 7¾; Alabama, 6¾ a 7d.

Circular of Andrew Taylor & Co.

Liverpool, 23*d August* 1830.

The transactions in Cotton last week were extremely moderate, only 7260 bales having found buyers.—Notwithstanding the limited demand throughout the week. holders did not shew any anxiety to press sales. and we cannot therefore notice any change in prices, the business done being at full previous rates; about 500 bales of the American were taken on speculation during the week, and the import in the same period was 13,400 bales; since the 1st Jan. it amounts to 594,700, against 532,280 to same period last year; the increase from the United

States is 99,600 bales. The sales of Cotton on Saturday and to-day are computed at 4000 bales without change in the market generally.

Quer. Bark, 50 hhds. of fine Philadelphia brought 12s. 3d. a 12s. 8d. per cwt. There has been a moderate business doing in Wheat and Flour at lower prices; the weather has been generally favourable for a week past throughout the country, and in many parts of the Southern counties, the harvest is proceeding rapidly; the duty on Flour is now 1s. 7½d. per bbl. and the present prices are, for bonded 30s. a 32s. and duty paid 33s. to 35s. per bbl. but the future currency will depend mainly on the weather. Tobacco, the sales are not weighty.

Liverpool Corn Exchange.—*August 24th.*

Flour, American, sweet, in bond, brl. 29s. a 31s.; Indian Corn, none.

			Wheat.
Imperial average for week ending		9th July	69s.6d.
Do	do	16th do	70s.3d.
Do	do	23d do	72s.8d.
Do	do	30th do	74s.11d.
Do	do	6th Aug.	74s.11d.
Do	do	13th do	73s.4d.
Aggregate av. last 5 weeks, which regulates duty,			72s.7d.
Duty on Foreign Corn,			2s.8d.

Our Corn market was well attended to-day, and there was a moderate demand for Wheat, at a reduction of 4d. a 6d. per 70 lbs. since Tuesday last. Oats were also 3d. a 4d. per 45 lb. lower. Canada Flour, and United States duty paid, were more inquired after at 32s. a 33s. per bbl.

Prices Current in Boston, Oct. 1.

Apples, new, bbl. 2.00 a 3.00 *Beans*, white, bushel, .90 a —— *Beef*, mess, bbl. 9.00 a 9.50; cargo No. 1, 7.50 a 8.00; No. 2, 6.50 a 6.70. *Butter*, inspected, No. 1, new, lb. .10 a .13. *Cheese*, new milk, 6. a .7; skimmed milk, 3. a 5. *Flour*, Baltimore Howard-st. 5.75 a 5.87; Genesee, 5.37 a 5.75; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .65 a 68; Rye, .65 a .70; Barley .60 a .62; Oats .32 a 35. *Hogs'-Lard*, 1st sort, new, lb. 11.50 a 12. *Pork*, clear, bbl. 19 a 20; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 12.00 a 12.50. *Seeds*, Herd's Grass, bushel, 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .33 a. —; White Honeysuckle Clover, — a .38; Red do. Northern, 9 a 10; French Sugar Beet ——; Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .58 a 62; do. do unwashed, .30 a .35. Merino mixed with Saxony, .60 .65; Merino three fourths washed, .47 *a* .—, do. half blood, .45 *a* .55; do. quarter, 37 *a* 50.

Prices Current in New York, Oct. 2.

Bees-wax, yellow .20 a 22½. *Cotton*, New Orleans .12 a .14; Upland, .11 a .13; Alabama, .11 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 5.12½ a ——; Canal 5.12½ a 5.37½; Balt. Howard st. 5.62½ a 5.75; Rich'd. city mills, 5.62½ a 5.75 country, 5.37½; Alexand'a, 5.37½ a 5.50; Fredericksburg -—— Petersburg, 5.37½ a ——; Rye Flour, 3.50 a 3.62½; Indian Meal, per bbl. 3.00 a — per hhd —— a 14.50. *Grain*, Wheat, North, —— a ——; Vir. .93 a .97; Rye, North, 65 a —; Corn, Yel. Nor. .63 a 65; Barley, 58 a 59; Oats, South and North, .27 a .35; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 9.75; prime a 5.50 a 6.00; cargo —— a —— Butter, N. York, 12½ a 15.

ALMANAC.

1830. October.	Sun. Rises.	Sun. Sets.	Length of days.	Moon rises.
	H. M.	H. M.	H. M.	H. M.
Saturday,.... 9	6 22	5 38	11 16	11 55
Sunday,...... 10	6 24	5 36	11 12	morn.
Monday,..... 11	6 25	5 35	11 10	0 55
Tuesday,.... 12	6 26	5 34	11 8	1 55
Wednesday, 13	6 28	5 32	11 4	2 56
Thursday,... 14	6 29	5 31	11 2	4 00
Friday,....... 15	6 31	5 29	10 58	5 05

Moon—Last Quarter—9th, 11h. 37m. Morn..

BALTIMORE PRICES CURRENT.

Baltimore Market.—There is a slight decline in flour since our last. Wheat remains the same; sales were made on Thursday of both white and red at our quotations. Corn, notwithstanding the shortness of the present crop, and the lateness of the season, continues without improvement. Beef remains the same as last week; the market is well supplied, and sales are made within the range of our rates.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25 00—St. Domingo, 11.00 a 17 00. The inspections of the week are 292 hhds. Maryland, 17 hhds. Ohio; and 2 hhds. Pennsylvania; total 311 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard-street 5.12½ *a* 5.25—city mills, 4.87½ *a* 5.00-—Susquehanna, ——; Corn Meal, bbl. 2.25—Grain; red wheat, .90 a .93;-——white do. 95 *a* 1.00—common red -—Corn, white, .54 *a* .55—-yellow .55 *a* .—-Rye, .51 *a* .52-——Oats, .27 *a* ——Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 5.50 *a* 6.00 Timothy, 2.50 *a* 3.00—Orchard Grass, 1.25 *a* 1.50—Herd's, -— *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, -Flaxseed, 1.12½--Cotton, Va. 9½ *a* 10½--Lou. 11½ *a* 13—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 10 *a* 12-Whiskey, hhds. 1st p. .31 *a* —; in bbls 32 *a* 33—Wool, common, unwashed, lb. .15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* 225; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, 6.25, *a* 6.50—No. 2, 5.75 *a* 6.00—No. 3, 3.75 *a* 3.87½-Bacon, hams, Balt. cured 10c.-Feathers, — *a* 35---Plaster Paris, cargo price per ton, 4.25 *a* —ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.00 *a* 4.50—Pine Wood, by the vessel load, 1.75. Oak, 2.75 *a* 3.00—Hickory, $4.50.

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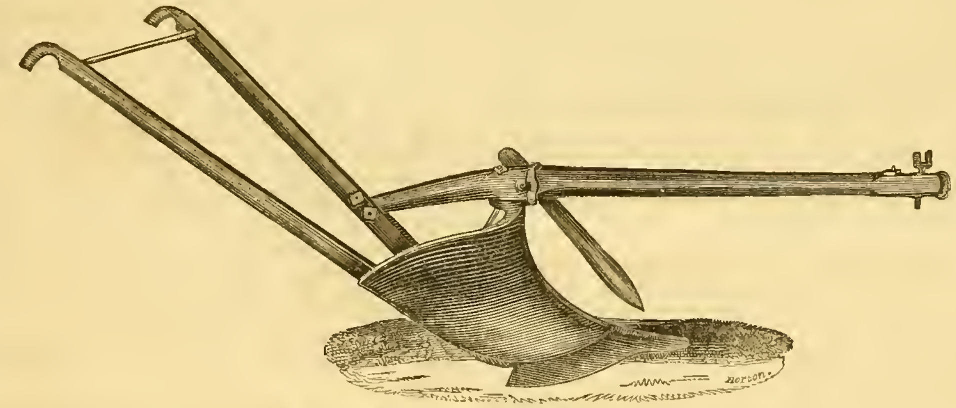

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AGRICULTURE.

AN ADDRESS,

Delivered to the Agricultural Society of Greensborough, Alabama, at their Anniversary, held on the 11th of September, 1830.

BY DR. R. W. WITHERS, PRESIDENT.

Gentlemen of the Agricultural Society:

The interesting occasion on which we are assembled, presents to the Agricultural interests of our country, an important and highly interesting spectacle. The celebration of the first anniversary of the only Agricultural Society, which has as yet been established in our state, deserves to be considered as an epoch in its history.

In endeavoring to present you with a short sketch of the objects of our Society, its importance, and the advantage to be derived from the promotion of its design and object, I shall be compelled to draw very largely on your candour and liberality, not only from the very limited space of time I have been able to devote to the consideration of the subject, but from my own incompetency to do justice to one of such important and highly diversified interests.

Collected as we are, from almost every part of our widely extended country, as well as from some of the most highly cultivated parts of Europe, and possessed of a soil and climate capable of bringing to perfection almost every variety of vegetable production—the importance of concentrating that mass of practical and useful information we have in our reach, and of applying it to the development of the hidden resources of this which is certainly one of the fairest portions of our highly favored country, must be an object worthy of the attention of the agriculturist, the philanthropist and the statesman.

Happily exempted as we are from the oppressive burdens of taxation under which agriculture labors and groans in most European countries—unconfined by the trammels of long established and inveterate prejudices and habits, it is in this country that we must look for that development of agricultural enterprise and improvement, which the genius of our institutions is so well calculated to elicit.

To excite and keep alive, that state of activity and enterprise into which our necessities have driven us—to direct the agricultural interests of our southern country, into more useful and profitable channels—to convey such correct information, and with it to endeavor to give such an impulse, as will imperceptibly lead our planters to lay a more solid foundation for comfort and independence, than can be done when all are exclusively devoted to one object, is the great end of our Agricultural Society. To expect to do this suddenly, would be promising ourselves too much, but with the collected agricultural information and experience, embraced in a very small compass around us, much, very much, may be accomplished.

The interesting results of experiments, which have already been made with the sugar cane, the vine and with silk, are sufficiently encouraging to stimulate us to renewed exertions. The great staple of the south has long since ceased to remunerate its cultivators with any thing like a fair equivalent for their labor, and unless some more profitable channels of industry can be discovered, we must expect to continue to labor under embarrassments, which are only perpetuated by the very means we take to relieve ourselves from them. As long as cotton continues to be made in greater quantities than the immediate exigencies of the manufacturers require, so long will it continue to be depressed to the lowest minimum at which it can possibly be raised. While we are paying millions for the wines, sugar, and other productions of foreign countries, which might with equal facility be raised in our own, we are begging a market abroad, for an article of which we raise such quantities, that it is depressed much below its real value.

The depreciation in the price of every thing raised by the planters of the south, and the consequent embarrassment and pecuniary distress of the country, compel us to look forward to the necessity, not only of increased exertions, but of a more judicious system of husbandry.—We have been too long tributary to the north and to the west, and have been too much in the habit of parting from the small pittance we receive for our staple, for commodities we could with great facility raise or manufacture at home.—The time has passed when we can expect suddenly to become rich, but we can prevent our condition from becoming worse by husbanding our resources, and directing our labor and capital to a greater variety of objects.

To point out these and to give a proper direction to their pursuit, was the leading object of the formation of an Agricultural Society among us, and though its object has to a very considerable extent been accomplished, a great deal still remains to be done. We have not, to a sufficient extent, availed ourselves of the many lights reflected upon Agriculture by the scientific researches of modern times. The preservation and amelioration of the soil on which we entirely depend, not only for the necessaries, but for all the comforts and luxuries of life, has not sufficiently attracted our attention. The earth is to us a kind and bountiful mother, but we should not forget that she needs some pabulum for her own support.

Of the truth of this, our own country unfortunately affords us convincing proofs. Look at the galled hill sides and worn out fields of Virginia, the Carolinas, and more particularly of Georgia, which has been settled since the recollection of many of you. They now present a spectacle of impoverishment and ruin, which like the tattered garments of former wealth and affluence, excite in the mind of the philanthropist, the painful feeling of regret mixed with pity. What cause has induced so many of us to abandon the patrimony of our fathers, and encounter all the difficulties and dangers incident to a removal into an uncultivated and at the time almost savage country, but the certain prospect of having poverty and want staring us in the face if we remained at them?

With these facts, however, before us, gentlemen, the apathy and indifference with which they are regarded, not only by the community at large, but by those whose better judgment, and more enlarged experience, ought to have taught to think more correctly, is but too apparent, even to the most superficial observer.—Instead of patronizing our society as the most effectual means of improving the agriculture of our country, its establishment has been regarded by too many, as a chimerical scheme, calculated only to diffuse theoretical notions, of no practical utility. It needs, however, but a very superficial examination to detect the fallacy of this idea. By casting a cursory glance over those countries in which agriculture has reached its highest state of advancement, we shall find that they are principally indebted for their present improved methods of husbandry, to the information diffused through the community by means of Agricultural Societies.—Look at Great Britain! What enables her in spite of a soil naturally unproductive, and a climate highly unpropitious to most vegetable productions, to support in a small compass of territory a population nearly or quite double that of the whole United States? By consulting her agricultural history, you will find it is owing to the high state of improvement to which her societies and literary men have advanced her husbandry. She has had her Davy unveiling the hitherto hidden mysteries of nature, analyzing her soils, and pointing out to her agriculturists the means of ameliorating them on scientific principles.

Agricultural chemistry has for its objects, all those changes in the arrangements of matter connected with the growth and nourishment of plants; the comparative values of their produce as food; the constitution of soils, and the manner in which lands are enriched by manure, or rendered fertile by the different processes of cultivation. Inquiries of such a nature cannot but be interesting and important, both to the theoretical agriculturist and to the practical farmer. To the first they are necessary in supplying most of the fundamental principles on which the theory of the art depends. To the second, they are useful in affording simple and easy experiments for directing his labors, and enabling him to pursue a regular and systematic plan of improvement.

It is scarcely possible to enter upon any investigation in agriculture, without finding it more or less connected with doctrines or elucidations derived from chemistry. If land be unproductive, and a system of ameliorating it is to be attempted, the sure method of obtaining the object is by determining the cause of its sterility, which must necessarily depend upon some defect in the constitution of the soil; which may be easily discovered by means of chemical analysis. It is by these means that extensive heaths in England have been rescued from their original barrenness, and converted into profitable and productive farms. Aided by that practical and useful knowledge, which has been collected and diffused by means of Agricultural Societies, and by public spirited individuals, who have devoted themselves to this laudable and praiseworthy pursuit, chemistry has exploded the empirical system of agriculture, practised in less enlightened days, and substituted in its stead, one, founded on scientific research, and demonstrable facts.

Though exalted above inorganic matter, vegetables are in a great measure dependent upon its laws. The preparation of the soil, the application of the different kinds of manures, and their adaptation to the different varieties of soils, are entirely chemical processes.

Plants, though destitute of volition and locomotion, have nevertheless their organs of assimilation, by which they receive their nourishment from the external elements. The surface of the earth, the atmosphere, and the water deposited from it, must either together, or separately, afford all the principles concerned in vegetation; and it is only by examining the chemical nature of these, that we are capable of discovering what is the food of plants, and the manner in which this food is supplied and prepared for their nourishment. It would be easy to adduce a multitude of other instances of the same kind, but sufficient, I trust, has been said, to prove that the connexion of chemical and scientific research, with the practical operation of agriculture, is not founded on mere vague speculation, but that it offers principles which ought to be understood and adopted, and which in their ultimate results can hardly fail to be highly beneficial to the community.

As an illustration of this doctrine, I shall condense in as small a compass as possible, a few remarks on *soils*—their constituent properties, as discovered by analysing them, and the necessity of understanding their nature and properties before we can with any degree of certainty improve their qualities, and render them permanently productive.

No branch of agricultural chemistry is more capable of being satisfactorily illustrated by chemical inquiry, and none certainly can be of more importance to the farmer than the *nature and improvement of soils.* Though extremely diversified in their appearance and quality, they consist of different portions of the same elements, in various states of chemical combination or mechanical mixture.

The substances which constitute soils, are compounds of the earths Silica, Lime, Alumina, Magnesia, with the oxides of iron and manganese; together with such animal and vegetable matters as may happen to be decomposing in them, and some saline acid, or alkaline combinations. To enter into any details on all these heads would be unnecessary on the present occasion, particularly as the three first are the only ones, which exert any very decided influence on the nature of soils, except, in rare instances.

Silica, in its pure state is the substance known by the name of rock crystal. By trituration and the decomposing effects of the atmosphere, it is reduced to sand; but in the state in which we shall consider it, the sand is variously combined with other substances, constituting what is commonly called a *sandy soil.*

The sensible properties of *lime*, are too familiar to you, to need any particular description. It exists in soils usually united to carbonic acid, which is expelled by means of other acids, for which lime has a stronger affinity, or by the application of a strong heat, as in the operation of burning lime. It is also decomposed by the action of the atmosphere, and the soil thus formed is denominated a *lime-stone soil.*

Alumina, in a pure state is obtained from alum. It is an essential ingredient in clays, and gives them their properties, hence called argil, and clayey soils, argillaceous. When it contains oxide of iron, as it often does, it has more or less color, and when breathed upon, emits a smell called earthy.

Of all the ingredients necessary to constitute a fertile soil, lime is the most essential. But this requires also a mixture of clay or sand, for no soil which consists of more than nineteen parts out of twenty, of any of the earths which have been mentioned, can support healthy vegetation. This fact has not only been demonstrated by chemical analysis, but we have examples of it on our sea coast, where the soil consists almost exclusively of sand:—on our post-oak ridges in this vicinity, where it is composed almost entirely of clay; and on some of our white prairie bluffs and hills, in which there is an excess of lime.

The carbonate of lime, when duly mixed with sand and finely divided clay, constitutes the most productive and durable soil. When mixed with some vegetable or animal matter, however, its fertility is greatly increased. The decomposition not only keeps up a moisture, but the soil being made loose and light, is more permeable to the atmosphere; from which the lime and clay attract a sufficient quantity of moisture during the night, to supply the plant in the day. Sir Humphrey Davy, to whom Agricultural Chemistry is more indebted than to any other author, (with the exception perhaps of Chaptal,) compared the absorbent power of many soils with respect to the atmospheric moisture, and always found it greatest in those which were most fertile. These were always found to contain a large proportion of the carbonate of lime. This not only attracts and retains the moisture from the atmosphere during the night, but it possesses the equally important property of exerting a certain degree of chemical attraction for many vegetable and animal substances during their decomposition, forming combinations by which the fertilizing matter is retained for the nourishment of plants.

Our soils are all more or less influenced by the different properties in which these ingredients exist in them, and our own neighborhood furnishes us with different kinds of sandy, argillaceous and lime-stone soils, sufficiently well characterized for the purpose of illustration. Upon examination we shall discover that their properties are just such as we should have been led to suppose from their chemical analysis. Sandy soils being incapable in their pure state, of uniting chemically, either with water or any animal or vegetable remains, give them up so readily to the atmosphere, that they need a constant repetition of the supply. From this cause, too, their fertility (which is owing entirely to the decomposition of vegetable remains which has taken place on their surface) is soon exhausted when they are cleared and exposed to the sun, and they remain ever afterwards unproductive.

The argillaceous soils, when the clay has not a due proportion of other ingredients, are likewise unproductive from their too great tenacity. As we have before intimated, the capacity of soils to absorb water from the air and retain it in chemical combination, is intimately connected with their fertility. The stiff clays, though they take up a great quantity of water when poured on them, are not the soils to absorb most moisture from the air in dry weather, owing to their becoming encrusted on the top and presenting only a small surface to the atmosphere. Hence vegetation on them is destroyed almost as soon as on sandy soils.

It is a convincing proof of the necessity of calling to our aid the lights of scientific research, that these facts, the truth of which is evinced by every day's experience were distinctly inculcated by the writers on chemistry as applied to agriculture, nearly twenty years since. We have all no doubt witnessed the evanescent effects of manures when applied to light sandy soils, which entering into no chemical combination with them, readily allow them to be evaporated by the heat of the sun, or washed away by the heavy falls of rain. The effects of the distressing drought under which we are at present suffering, indicate to us in a manner not to be misunderstood, that these soils can neither attract nor retain moisture, while our prairie lands which are composed almost entirely of decomposed shells and other calcareous matters, which exert a strong affinity for water, afford almost the only remnants of vegetation to be found in our scathed and scorched up country.

Having said as much as my time will allow, and enough, as I may venture to hope, to show the interesting and highly important connexion between correct scientific knowledge, and practical agricultural skill, the objection, founded on ignorance and error, that Agricultural Societies, are only calculated to disseminate visionary theories, of no practical utility, will, I trust, be no longer urged.—Science can no longer be despised as the mere speculation of theorists; but must soon be considered by all ranks of men, in its true point of view, as the refinement of common sense guided by experience, gradually substituting sound and substantial principles, for empirical practices and vague popular prejudices.

Let me not, however, be understood to advocate the idea, that theoretical is more important than practical knowledge.—Theories are only intended to supply us with those enlarged and comprehensive ideas which are necessary for the general management and direction of our affairs; but to apply them successfully to the practical operations of agriculture, requires a degree of knowledge and tact, which we can only derive from experience. They might, perhaps, without any far fetched metaphor, be compared to the sails of a ship; when judiciously applied, and skilfully managed, they waft us on to wealth and prosperity, but deprived of them, we should be compelled ever to remain at anchor, without advancing one cable's length on that great voyage of discoveries, in which the whole world is embarked.—Science, like the compass, may point out the course, but unless reason and experience manage the helm—unless we have on board a sufficient cargo of sound practical knowledge to ballast our vessel, we can never venture out on that great ocean of doubts and uncertainties, into which our theories would carry us.

The only remaining topic to which I shall call your attention, is the importance of the subject, the promotion of which it is the object of the society to patronize. It requires no very close observation to discern, that of all the diversified occupations in which man is engaged, agriculture exerts the most immediate, as well as the most extensive influence on his happiness and comforts.—Being the employment which his Creator originally intended for man, our wants and necessities are so constituted as to be almost entirely dependent on its resources for their relief. The garden of Paradise, the only place on earth in which man was ever represented as being completely happy, is typical of the bounties and beauties of nature, in a state of cultivation. Surrounded by every thing necessary to render him comfortable and happy, the agriculturist in our highly favored country, may repose in safety under his own "vine and fig tree, with none to molest or make him afraid."—Every season brings with it new pleasures for his enjoyment, and new subjects for his contemplation. The beautiful verdure of spring, the rich luxuriance of summer, the plentiful abundance of fall, and the cheering and invigorating comforts of winter, alternately administer to his happiness. He sees in the revolution of the seasons, that allwise and beneficent provision for his subsistence, which nothing but infinite wisdom could have devised, and relying on his own resources for a support, peacefully enjoys a life of independence and ease, unawed by the influence of the great, the rich, or the powerful.

But however dependent we are on agriculture for our individual comfort and happiness, we are not less so, for our national wealth and prosperity. While she feeds the hungry and clothes the naked at home, she whitens the seas with the sails of commerce abroad, sets in motion the workshop of the mechanic, and the manufactory of the more wealthy capitalist, affords wealth to the merchant, and fills the coffers of our government. Instead of being the handmaid of commerce and manufactores, as she is commonly called, agriculture may with more propriety be denominated their foster mother. She not only brings them into existence, but furnishes them with the pabulum necessary for their support and prosperity.—Without her fostering care and protection, those necessaries and luxuries, which add so much to the elegancies of life, could never have been called into existence; and man, instead of subduing the very elements to subjection to his will, and rendering all nature subservient to his happiness, would, like the savage of the forest, be immured in the deep recesses of the wilderness, unconscious of the blessings which God and nature had intended him to enjoy.

It is not, however, solely on account of diffusing so many blessings among us, that agriculture is entitled to our patronage and support. She nurtures and raises up in her bosom, a race of hardy, independent yeomanry, who constitute the very shield and bulwark of our country, in the hour of danger. Accustomed from their infancy to a life of hardihood and independence, and early imbibing those principles of freedom, which glowed in the breasts of their fathers in '76, they are ever ready to step forward in support of those liberties which were then so dearly purchased. It was the blood of the yeomanry of our country, which in our revolutionary struggle, was traced on the snows of the north, and finally sealed our liberties on the plains of the south. It was their prowess and courage, which in later days, plucked from the heads of the proud veterans of Wellington, the laurels they had so recently won from the ablest military chieftain the world has ever seen. They commenced our first glorious struggle on Bunker's Hill, and terminated our late honorable one, with one of the most brilliant victories, ever recorded on the page of history.

Let us then cultivate with assiduity, an occupation, which contributes so largely to our individual happiness, and national prosperity—and let us assert and maintain the right of agriculture, to be esteemed not only the most honorable, but the most widely beneficial of all human employments. Instead of the scholastic erudition of less enlightened days, she should be taught in our schools and colleges, and elevated to that rank among the sciences to which her importance entitles her. It is indeed a subject "which comes home to men's business and bosoms," and one which has peculiar claims upon us, as the representatives of its interests, for our most active and efficient support. If, in the language of a very distinguished writer and statesman, "whoever makes two blades of grass grow where but one grew before, deserves to be considered a great public benefactor," to how much more shall we be entitled, if we succeed in advancing the agricultural interests of our country, by developing new resources to her enterprise, and opening new channels for her industry. But to do this, we must recollect the advice of Jupiter to the man in the fable, and every one of us, put his shoulder to the wheel. The exertions of any one individual are insufficient to accomplish a task so arduous; and without the united and cordial support of its members, the decline of our society will evince to the world that blindness and indifference to our own interests, which we have been deprecating in others.

(From the Western Tiller.)

HEDGES.

I have been much pleased with a number of your extracts from the New England Farmer, a paper which stands high in my esteem. But I am apprehensive that the article on Honey Locust will introduce disappointments among us. And notwithstanding the authority is great, as few men in the same time have done more for the advancement of agriculture than Judge Buel, yet I must beg leave to differ in opinion, and offer my own experience and some of my friends by way of apology. Some eight or ten years ago, I collected a number of small plants from the pasture fields, and set about four rods as an experimental hedge. And as we intended to make a fair trial of the hedging business, some of our people gathered thorns promiscuously from the woods and set about sixty rods. Others sowed the *pyracanthia,* or evergreen thorn; at the same time some were engaged in proving the prim of which about thirty rods was set. This was done at Union Village. The thorn did well, and would have made a good fence, but owing to some neglect in timeously filling the gaps, it has not yet come into use.

The *pyracanthia* may yet make a hedge, and should it answer the purpose, will certainly be very beautiful; but it grows slow and I am fearful it will prove too tender a plant for our winters. The prim failed here altogether, and in three years died off, owing to its crowded situation. The honey locust could not be made sufficiently thick at bottom, while the tops retaining their own native order were stretching upward with great luxuriance far beyond the bounds of a hedge, and whenever they were lopped death was the inevitable consequence. With this result of my locust hedge, I came to this fair and I think justifiable conclusion, that no forest tree will form a suitable article for hedging.

About the same time the United Society on the Wabash, made a very extensive experiment of the locust, and came to the same conclusion.

Yet, after all, I am far from believing with one of your subscribers, that it will be best to wait for legislative interference before we attempt to enclose our fields with live fence; but at the same time I am ready to acknowledge, that it would be a consummation devoutly to be wished. And notwithstanding some of the back settlements might enter their veto against the statute, yet, I am clearly of the opinion that it would in the result prove a salutary and useful law even to them; because the natural consequence of confining the savage tribe of rooters would be the preservation of pea vine, and a number of valuable grasses, for many years, as range for better stock.

Several species of shrubbery which are easily propagated, would answer a much better purpose for hedging than the honey locust so highly spoken of at present; but how long it may be before our western agriculturists may become fully awake to the necessity of substituting a living article for a dead one, for fences, is more than I can say, as I have found but few men in the United States have adopted the plan of making live fences, until compelled to it by an imperious necessity. And yet I am fully of the opinion that a living fence which will last fifty years, may be made at less expense than a fence of any description made of timber. And I feel warranted in making this assertion from actual experiment. Here I would not be understood to say that I have proved a fence of this description for fifty years; but, if your subscriber would take the trouble to pay me a visit, I think I could show him a hedge, only two years old, that would present an impassable barrier to his wedge-snouted long faced gentry, of which he so justly complains.

I have no doubt but that the indigenous thorn will be found fully equal if not superior to any other article for hedges. By some the difficuly of getting the seeds to grow immediately has prevented their making any experiments in the cultivation of it, as it is a well known fact that the seeds will not germinate in less than two years and a half from the time of their ripening. This in my opinion is no serious objection. Gather your haws in the fall, put them in leaky barrels, set them under the drop of some house or shed, let them take rain and frost for two years, then plant them and they will come up well the next spring. The next year you may gather again and place them in a state of preparation, and after two and a half years have them coming on in regular succession every year.

I am not yet led to believe from any observation I have made, that the English Hawthorn is in any wise superior to our own native plants. I have, however, noticed one kind common to the Miami country which is far preferable to any other. This by some is called the silver leaf, and by others the pear leaf. The thorns are long—the leaf in its shape has some resemblance to the pear leaf, and is a dark shining green.

By some the Buckthorn is preferred to all others. because no insect will prey upon it. Of this kind I have about a dozen plants and shall give it a fair proof.

Finally, after proving many things, we have fallen on an entire new plan in relation to hedging, in which we have no doubt of succeeding to our entire satisfaction; and in four years (from present appearances) we shall have a hedge sufficiently formidable to prevent the trespass of any common animal, half starved hogs not excepted. Three years ago we collected a small quantity of the Sweet Brier seed, and sowed them in the fall. The next spring they came up well. The next spring after, we planted them on our mill race one foot apart; these make a promising appearance. The next fall we collected about two quarts of seed, and sowed them in drills about two feet apart, making a nursery of six rows about thirty rods long.

This furnished plants sufficient to complete the hedge on the mill race, being nearly half a mile long, and likewise as many as enclosed three sides of a garden containing about two acres.—Another lot of seeds was sowed last fall, but owing to some casualty they did not come up.

Two rows were left in the nursery and have now grown two seasons on the ground where they were planted. These two rows begin already to develop what may be expected as a final result of the experiment. I have, however, come to the conclusion, that it would save time and labour to sow them where they are finally to stand; and I think for out-side fences it would be better to sow in double rows two feet apart. He that believes may go and do likewise.

Calvin.

SMUT IN THE WHEAT.

A discovery has been made by Mr. Adonijah Alden, a respectable farmer of this county, which we think may be important to farmers, and therefore give it publicity. Mr. Alden gives it as his opinion, from experiments he has made, that smut is produced from small shrivelled kernels of wheat.—He made the discovery by washing one part and screening the other part of the wheat he sowed in the same field, and by sowing each part by itself. On that part of the field with washed wheat, there was smut, and on that part sown with screened wheat there was none. At his suggestion the same experiment has been successfully tried by others. [*Bradford* (*Pa.*) *Settler.*

HORTICULTURE.

(From Prince's "Pomological Manual," now in Press.)

PEARS.

Angel Pear. *Pr. cat.*

Poire d'ange. Roz. Duh.

This fruit is of turbinate form, its height being twenty-one lines and its diameter eighteen; the eye is pretty large, and situated almost even with the fruit; the stem, which is seventeen lines in length, is slender and surrounded by projections at its junction; the skin is yellowish green; the flesh half-breaking, rather delicate and very musky. The seeds are black, and the fruit ripens in the beginning of August.

Musk Drone. *Pr. cat. Mil. For.*

Bourdon musquée. Roz. Duh. Mil. Pr. cat. 25 cd.
Bourdon, or Humble bee pear?
Orange, d'été.
Drone. Mil.
Musky Bourdon.

This pear is of a round shape, almost globular, a little flattened at the base, its height is seventeen lines and its breadth eighteen or nineteen; the eye is tolerably large and placed in the centre of a pretty broad cavity; sometimes the upper end is rather contracted, assuming the form of a top; the skin is light green, scattered over with small points of a darker shade of the same colour; the flesh is white, breaking, with considerable juice which possesses a musky flavour and some sweetness. The seeds are large and black, and the fruit matures in July; the tree is very productive, and can be ingrafted either on the pear or quince.

Summer Beauty. *Pr. cat.*

Suprême, }
Bellissime d'été, } Roz. Duh. Mil. For.
Bellissime, or Super-fair. Evel.
Muscadelle Rouge, }
The Fairest or Supreme, } Mil.
Red Muscadelle. Mil. For.
Red Muscadel, of some English collections.
Beauty of Summer.

This pear so called in France and which I have latterly introduced, is very distinct from the one formerly cultivated by myself and still generally cultivated by others under the same name. The latter appears to belong to either the Muscat—or Muscadelle family described in this work. I am not fully certain that the Red Muscadelle of the English is the same as this, as there seems great confusion in the application of its synonymes. The fruit is twenty-four lines in height and twenty in diameter, and almost pyriform, having the base well rounded and the space where the eye is placed being rather flattened than hollowed. The skin is smooth and light green on the shade side, which attains a lemon colour at maturity, mingled with some tints of pale red; the whole side exposed to the rays of the sun is of a very deep red colour; the flesh is half-melting, sweet and of agreeable taste, but not high-flavoured. The seeds are black, and the fruit ripens in July. The tree is of the most vigorous growth, and forms very strong and thrifty shoots the first year from the graft or bud, and may with equal ease be propagated on the quince and the pear.

I quote the Red Muscadelle of the seventh edition of Forsyth as a synonyme; but the circumstance which he relates, as well as other English writers, that this tree produces two crops in a year is not deemed correct.

Bloody. *Pr. cat.*

This fruit is twenty to twenty-four lines in height and eighteen to twenty-two in diameter, with a stem rather more than an inch long, which rises from a small cavity; the skin is grayish on the shade side, and slightly reddish next the sun, speckled (*tiqueté*) all over with innumerable points or dots approaching a fawn colour; the flesh is of a rosy hue, with but little flavour and rather insipid. This fruit ripens about the middle of August, and is a curiosity on account of the colour of its flesh, which it is to be regretted is not of superior quality.

Red Flowering. *Pr. cat.*

This pear greatly resembles the preceding; it is of turbinate form, being twenty-six lines in height and twenty-four in its greatest diameter; the eye is placed in a small cavity; the peduncle is from eight to fourteen lines long and generally inserted somewhat laterally and not exactly at the apex of the fruit; the flesh is firm, breaking, of a whitish and roseate hue, with some veins of deeper red. It has but little flavour and soon becomes soft. It ripens early in August, and the seeds are of a blackish brown colour.

Figue, or Petalless. *Pr. cat.*

This fruit is pyriform, but very much elongated, being three inches in height, and but twenty-two lines in diameter; the eye is placed in a slight cavity, and the size of the fruit diminishes towards the stem; the skin is pretty even and regular, and of a brownish green hue even at its maturity; the flesh is white, melting, sweet, and pleasant. The seeds are black and oblong, and the tree matures its fruit in September.

Small Summer Thorn. *Pr. cat.*

This pear is of an exact pyramidal form, being twenty-three or twenty-four lines in height and twenty-five lines in breadth; the peduncle is swollen or enlarged at the point of its junction, and that part of it becomes somewhat fleshy; the eye is nearly or quite even with the surface of the fruit; the skin even at maturity, is of a light green hue and perfectly smooth, but in some few cases acquires a slight tint of dull red on the sunny side; the flesh is half-melting, replete with sweet juice, which also possesses a most agreeable perfume. The seeds are light brown, and the fruit ripens the beginning of August.

Great Summer Thorn. *Auth.*

This fruit is three to three and a half inches in height, and twenty-four to twenty-eight lines in its greatest diameter; it is rounded at the base and pointed at the summit; the skin is delicate, almost wholly a yellowish green, and scattered over with numerous small dots of a deeper shade of the same colour; the flesh is half-melting and of a very agreeable musk flavour; the seeds are very dark brown, and the fruit ripens at the end of August or beginning of September.

Summer Thorn or Thoulouse. *Auth.*

This pear differs from the preceding in being of a turbinate form, of smaller size and more melting. It scarcely exceeds two inches in height, and its diameter is twenty-two lines, with a short stem which is swollen at the part next the stalk, and likewise a little so at the other end where it unites with the fruit. The skin is greenish and not very even, on account of the dots and some grayish specks scattered here and there over its surface; the flesh is very melting and sweet, with a little sharpness of flavour, which however is agreeable. The seeds are dark brown, and the fruit matures at the same period as the preceding.

Sapin.

This is a small pyriform fruit, flattened at its head, where the eye is placed in a pretty wide cavity of moderate depth; the size of the fruit diminishes regularly and terminates in an obtuse point at the stem, which is nearly an inch in length; the skin is at first of a bright green hue, but becomes yellow at perfect maturity; the flesh is white and rather coarse, with but little juice—it is slightly perfumed, but does not possess much flavour; the seeds are dark brown, and the fruit ripens at the end of July.

Double Headed. *Pr. cat.*

This fruit is of a turbinate shape, and but seldom well and regularly formed; it is twenty-six lines in height and twenty-five in diameter, with a large stem varying from ten to twenty lines in length, and often somewhat fleshy at its junction—it is inserted obliquely in the fruit, and partly covered on one side by a fleshy excrescence terminating nearly in a point; the eye is placed in a raised position, formed by a number of small swellings or projections; it is large and oval, with the appearance of being divided in two parts, from which circumstance this pear has received the title of *Deux-têtes*, or *Two-headed*, which is not however sufficiently precise, and it might better have been called *Deux-yeux*, or *Two-eyed*. The skin is smooth and green approaching to yellow on the shade side, and washed with brownish red next the sun; the flesh is white, not very delicate, tolerably juicy and slightly perfumed, but often a little tart. The seeds are black, and the fruit ripens at Paris at the end of July.

Summer St. Germain. *Pr. cat.*

The skin of this pear is entirely of a fine lemon colour, without any mixture of other shades, except some very small grayish or fawn-coloured specks, which are more or less scattered over it; the fruit is of a very elongated pyriform shape, being three inches and three or four lines in height, and twenty-six lines in diameter; the eye is nearly even with the extremity of the fruit, and the stem is twelve to fifteen lines in length and has almost invariably a somewhat lateral position. The flesh is melting, sweet, and perfumed, with a little acidity in its flavour which is not at all unpleasant, but assimilates its whole taste very much to that of the Crasanne; the seeds are brown, and the fruit matures early in August.

In the new edition of Duhamel, where alone I have found this pear described, it is extolled as a most excellent fruit, whose culture it is there stated merits to be extended to all the departments of France, it being as yet but partially known and cultivated even in that country.

Beauty of Summer. *Auth.*

This pear is of fine form; it is globular for two thirds of its length next the base, and very much contracted at the point of junction with the peduncle, where it terminates in a pyramidal shape. It is altogether three and a half inches in height and twenty-eight lines in its greatest diameter, but at an inch below the stem its diameter does not exceed twelve lines; the stem is about fifteen lines in length, and almost invariably inserted in rather a lateral direction and within a small cavity; the eye is even with the fruit, surrounded with many small swellings which extend to the middle of the fruit or further, and form in the course of its height several undulations, or slightly projecting ridges. The flesh is firm, rather sweet, and moderately perfumed; the seeds are dark brown and often one half abortive. This fruit ripens at the middle of August. It has been cultivated for some time at the Jardin des Plantes at Paris, under the title of *Bellissime d'été*, a name which belongs to a very different fruit.

Cassolette. *Pr. cat.*

This pear is frequently very small, and but nineteen to twenty lines in height and sixteen in diameter; at other times, as Duhamel remarks, it is above two inches in height and twenty lines in diameter. Its general shape is pyriform, rounded at the head; at the other extremity is a small cavity, of very even form from which rises the peduncle whose length is from five to seven lines. The skin is bright green, with a very little red on the sunny side; the flesh is firm and breaking, but delicate notwithstanding, and of a sweet and musky flavour. The seeds are brown, and the fruit ripens at the end of August.

Duhamel speaks of a sub-variety of this pear of larger size, but possessing less excellence. It is pyriform, a little rounded at the base where there are some swellings, amid which the eye is inserted; its height is two inches and nine lines, and its diameter twenty-seven lines; the stem is frequently accompanied by a small swelling at the place of its junction with the fruit; the skin is green and rather smooth, although it is dotted over with numerous points of a greenish brown hue, and the side next the sun has a slight touch of russet; the flesh is half-breaking, rather dry, and of a musky flavour. This fruit ripens the beginning of September.

(From Prince's "Pomological Manual.")

LARGE PEACH.

Monstrous Pompone, *Pr. Cat.*

Pavie de Pompone, *Pavie rouge de Pompone,* *Pavie monstreux,* *Pavie camu,*	Different titles according to Duhamel.

Peche monstreuse, of some French collections.

This peach, which is the very largest variety yet known and one of the most beautiful, belongs to the clingstone class. The flowers are large, and not deeply coloured, they do not open perfectly, on account of the petals being very much hollowed, in the form of a spoon. The fruit is very round and of extraordinary dimensions, with a large mamelon or nipple at the extremity. Duhamel states that it is often fourteen inches in circumference; the skin is velvety, whitish, approaching somewhat to yellow on the shaded side, and of a fine red colour next to the sun. The flesh which strongly adheres to the skin as well as to the stone, is white, with some redness however next the stone, it is very firm but nevertheless succulent, and contains a sweet juice, which is musky, vinous, and very pleasant.—It requires a warm summer to perfect its fine properties, such as we generally have in the United States; in cold and wet situations the quality is inferior. The period of its maturity is the beginning of October; the stone is small in comparison with the size of the fruit.

This variety was introduced by the author a few years since from the south of France, together with the other most delicious and high flavoured varieties of that interesting region.

The tree is remarkable for the strength and vigour of its growth and the size of its leaves.

THE FIG TREE.

Linnæan Botanical Garden,
Oct. 8, 1830.

Gideon B. Smith, Esq.

Dear Sir,—You will find the opinion advanced in the Treatise on the Vine that we shall ere long cultivate the Fig, Pomegranate, &c. as common appendages to our gardens, by making use of similar artificial means of culture as adopted for the more tender Grape Vines &c., and the following fact corroborates that opinion.

Col. Williams, of this island, who resides about a mile from my house, has a Fig tree, low set, but spreading as much as an Apple tree which is now loaded with fruit; it has been in bearing during the whole summer and has now on it what he calls the fourth crop, but which is in fact a continuance of the second crop, as all the young shoots last formed have fruit even to their ends. He protects it in winter by surrounding it with boards, and filling the space with earth so as to completely cover the branches. It is of the small brown variety; he has the white also, but it does not bear equally well. Few persons unaccustomed to eating fresh figs have any conception of their luscious qualities.—There are at least a dozen if not more varieties which may be made to succeed in the middle states by the simple means applied by Col. Williams.

Very respectfully,
Alfred S. Prince.

INTERNAL IMPROVEMENT.

BALTIMORE AND OHIO RAIL ROAD.

Fourth annual report of the President and Directors, to the Stockholders of the Baltimore and Ohio Rail Road Company.

The President and Directors now present to the Stockholders of the Baltimore and Ohio Rail Road Company, the report of their operations during the last twelve months, exhibiting the present condition of the work committed to their charge, and its future prospects.

At the time of their first and second annual reports, the Board were engaged in obtaining preparatory information, and making the necessary arrangements for commencing the construction of the road. The third annual report found them employed in overcoming the great, and, in the opinion of many, insurmountable obstacles which had occurred upon the sections between the city of Baltimore and the Patapsco river. The present report will convey to the Stockholders the gratifying information, that all these difficulties have been subdued; and that the company, as well as the community, are now in the enjoyment of the profitable and useful results which have followed the completion of the first division of the road. It is, therefore, under feelings of the highest satisfaction, that the Board submit their Fourth Annual Report.

For the details of the operations of the company, so far as they relate to the construction and location of the road, during the past year, and the application of moving power upon it, the Board refer the stockholders to the first annual reports of their Chief Engineer and Superintendent of Construction, together with their accompanying documents. These papers will be found to exhibit a minute and circumstantial narrative of the progress made, since the last annual report of the President and Directors; and afford a most gratifying and satisfactory evidence of the energy, skill and judgment with which these operations have been conducted, by the several officers of the company, to whom their superintendence had been confided.

The first division of the road was opened for the transportation of passengers on the 22d May, 1830, being a little more than eighteen months after the commencement of the work upon it, but the preparation of the necessary Cars was not effected until the early part of June following, from which time, the travelling upon this division, including a distance of about thirteen miles, has been constant and uninterrupted; and, on the first of October; there had been received twenty thousand and twelve dollars and thirty-six cents, although but a single track was completed, and the company were not in a situation, until within a short time past, to undertake the transportation of any merchandise or produce, and are still unable to convey one-tenth part of the quantity that is offered.

The Board propose, on the first day of January next, to commence semi-annual dividends, of the nett profits of the company, and to continue these dividends, upon the income from the road, as its several divisions shall be completed and put into operation.

The application to the General Government for a subscription in aid of the funds of the company, not having succeeded at the last session of Congress, the corporation of the city of Baltimore, with its characteristic liberality and public spirit, promptly placed at the disposal of the company, a fund, which added to its other available resources, will be sufficient for its present exigencies, and will prevent any delay or interruption, in the active and vigorous prosecution of the work, as far as to the Valley of the Potomac.

The injunction which was obtained at the suit of the Chesapeake and Ohio Canal Company, prohibiting this company, soon after its organization, from proceeding to construct the Rail Road along the Potomac river, still remains in force, and has hitherto limited the operations of the Board, to the country eastward of the Point of Rocks. In the regular prosecution of the suit which the injunctions occasioned, a commission was issued from the Court of Chancery of Maryland, to Nathan S. Roberts, Engineer of the Chesapeake and Ohio Canal Company. and Jonathan Knight, Chief Engineer of this corporation, requiring them to survey and report the character of the land in dispute,—the difficulties, which the independent prosecution of either work would occasion to the construction of the other,—and the facilities which their joint and amicable completion would mutually afford. After a careful and diligent examination of the country between the Point of Rocks and Harper's Ferry, the Commissioners agreed in reporting, that the conjoint location and construction of the two works was practicable, and would cause to both companies, an expense of only twelve thousand six hundred and twenty-five dollars and fifty-five cents, more than would be incurred by their independent location and construction.

As soon as the Directors of this Company were made acquainted with the results of the surveys under the commission, and had understood that there were no insurmountable difficulties, at any other points, in which the two works might be expected to come into collision, between Harper's Ferry and Cumberland, they determined, if possible, to effect an amicable and immediate adjustment of the legal controversy with the Chesapeake and Ohio Canal Company. With this view, a communication was addressed to the President and Directors of the latter body, proposing that the two companies should, forthwith, proceed to such friendly arrangements as would enable them both, without delay, to prosecute their respective operations as far as to Harper's Ferry.

This communication led to a correspondence which resulted in a direct proposition being made from the President and Directors of the Baltimore and Ohio Rail Road Company, to the President and Directors of the Canal Company, of specific terms, for the adjustment of all their differences, upon the basis of the report, which had been received from the Commissioners, on that part of the line between the Point of Rocks and Harper's Ferry; and which, if acceded to, it was confidently believed, would remove all occasions for further difficulties between the companies, and place them both at liberty to carry on their respective works, along the entire line, as far as to Cumberland.

The two Companies are at this time engaged in a discussion of this proposition, and the Board cannot but indulge a hope, that the negociation will result in putting a termination to the existing legal controversy, and leave both parties at liberty to prosecute their respective plans and operations, without interruption.

In recurring to the circumstances under which this work was commenced, and considering the many difficulties which attended its early progress, the Board are convinced that no enterprise, either in our own country, or abroad, labouring under similar embarrassments, has ever been carried forward with more rapid progress, or more triumphant success:—every anticipation of the advocates of the undertaking has been fully realized, and incontestable proof has been afforded of the superior advantages of this system, as a means of intercommunication, over all others which human ingenuity has devised.

It will be recollected, that this enterprise was commenced under a deep conviction, that some prompt and energetic effort was urgently required, in order to enable Baltimore to maintain the same relative advantages that she had hitherto enjoyed, in her competition for the trade of the west, with the neighbouring cities of Philadelphia and New York; which trade it was perceived, was daily withdrawing from her, in consequence of the improved facilities opened, by the states of Pennsylvania and New York, in order to attract it to their respective commercial emporiums. Extensive systems of internal improvement, having this direct object in view, had been organised both by Pennsylvania and New York, and being sustained by the ample resources of those states, were in a train of rapid completion.

The city of Baltimore, sensible of the danger that threatened her commercial prosperity, had taken measures to ascertain the practicability of uniting herself by a canal with the Ohio, and thus to secure, at least some participation in this trade; but happily for her, it was ascertained, that an efficient canal could not be constructed in any direction towards the Ohio, in consequence of the unevenness of the intermediate country, and the inadequacy of a supply of water;—had this not been the case, it is probable, that her resources would have been vested in a canal, which at no remote period, would have been abandoned for the construction of the work in which she is now engaged.

The old adage that "necessity is the parent of invention," may with peculiar force be applied to the citizens of Baltimore in this case; cut off from all prospect of a canal, they applied themselves to the discovery of some other means of gaining the great object desired. The principles upon which Rail-roads might be constructed, and the cost and effect of moving power upon them, became a subject of earnest and diligent investigation, and the examination resulted in a thorough conviction, that in a country circumstanced as ours is, a Rail-road would be far more efficient and economical than a canal, and under this conviction, they immediately determined to commence the present enterprise: our situation, however, was a peculiar one; the state of New York, counting a population of nearly one million and a half of inhabitants, with an immense taxable property, and the state of Pennsylvania, but little, if any inferior, either in population or resources to New York, had in their sovereign characters undertaken *their* improvements—*they* had only to will it, and the necessary means were at once placed in their treasuries; funds could be drawn from foreign countries, which far from imposing any immediate burthen upon their citizens, did in reality make money more abundant amongst them, and raised the value of their property, particularly in all situations where it might be supposed benefits would be received from the public works; whilst the citizens of Baltimore, not exceeding about eighty thousand in number, found themselves with no certain reliance except upon their *individual* resources, compelled to undertake an enterprise not inferior in magnitude, to those of the states of New York and Pennsylvania, whether to be viewed as a channel of communication, for the transportation of produce,—the conveyance of passengers, or, as a ligament to the union of the states; and this not in the corporate character of the city, by which its wealth and resources could be brought by enactments, to concentrate at a given point, but by the voluntary and individual subscriptions of such of the citizens, as might be disposed, either from interest of patriotism, to contribute their funds.

Under a charter, granted by the state of Maryland and confirmed by the state of Virginia, the individuals, thus associated, became a corporate body, and commenced their operations through the agency of a President and Directors, who subsequently obtained the confirmation of their charter by the state of Pennsylvania. Though this charter was granted and confirmed by those states here named, in the utmost spirit of liberality, and all the powers were vested in the company, which could with propriety be conferred on such a body, they were nevertheless but a private company, whose strength lay not in the powers granted, but in the amount of funds they might be able to command, and this would be wholly dependent on public opinion. It is therefore evident, that in calling for funds, upon a community thus situated, the utmost circumspection and prudence were necessary, in order to avoid an inconvenient pressure, upon so limited a number; at the same time the difficulties that were to be encountered in the organization of the company, and in the employment of suitable agents for locating and constructing the road, so as to bring to a fair test, the practicability and utility of such an enterprise, may be more easily conceived than explained. No precedent was to be found in our country, nor could a single land-mark be discovered by which our course might be directed.

There could not be found amongst the stockholders, one individual who had experience in the construction of Rail-roads; few of them had ever seen one. A Board of directors was, therefore, to be selected, who, from necessity, had to acquire all the practical knowledge essential to the proper government and direction of the operations of the company. As a first step of this Board, inquiry was made for engineers, acquainted with the principles and construction of Rail-roads, but none could be found, who possessed more than a very imperfect theoretical knowledge upon the subject. Some experimental Rail-roads, in our own country, of small extent, and of rude and imperfect construction, were examined by a committee of the Board, but these disclosed no important information, further than as they afforded additional confidence, in the principles which had led to the adoption of the plan of our Rail-road; all information necessary, was therefore still to be acquired by the Board and agents of the company, before they could venture to advance a single step in the work:—principles were to be investigated, and plans to be adopted, before it could be deemed safe to decide, even upon the location of the road, or the selection of any particular route. Parties arose in different sections of the city and country, who pressed the adoption of measures, calculated to promote the interests of particular districts and persons; discontents appeared amongst the stockholders; some recommending one course, and some urging another; and these discontents were fomented, by persons having a deeper interest in the property of the city than in the stock of the Company; while not a few of the citizens, who in the enthusiasm of the moment, had subscribed for the stock, but who afterwards became alarmed, fearing they had embarked in a bad speculation, began to press their shares upon the market for sale. These circumstances were strong admonitions to the Board, that the success of their enterprize rested upon very precarious ground. Without public confidence, whatever might be the merits of the undertaking, the instalments would not be paid, and unless the instalments were paid, the work could not be executed; under these perplexing circumstances, the Board found it impossible to pursue any rigid system for the government of the agents in its service, which it should not be at liberty to modify and depart from, as exigencies might arise. All its measures were dictated by a zealous and earnest desire, to press forward to an early completion, the first division of the road, which, when finished, it was fully believed, would settle public confidence, upon a basis not to be shaken. In this expectation the Board have not been mistaken—the results have been more satisfactory than had been anticipated, even by the most enthusiastic and zealous advocates of the undertaking—and the crisis of danger and uncertainty is passed.

At the same time that the Directors were surrounded by these embarrassments, it was ascertained that other difficulties of a most formidable character, were to be encountered at the very threshold of the work. From the unfavorable situation of the ground over which the road was necessarily to pass, for the first eight miles between the city of Baltimore and the Valley of the Patapsco, it was soon perceived that the expenses here would unavoidably be very great;* but it had been ascertained that in adopting this route, a line of road would be secured, which by some extensive embankments, and deep cuttings near to the city, could be located with but a single summit for the distance of 180 miles, and with but two summits requiring stationary power, along the entire distance to the Ohio River. From the great improvements made in locomotive engines and the wagons used upon rail ways, the decided advantages of a level road, will become more and more apparent; and any ascent which shall interfere with the successful operation of those engines, will be looked upon as a defect, inadmissible, except where the necessity of the case renders it unavoidable—more especially in the vicinity of the termination of the main stem, at a great commercial depot, where all the trade of the principal road, and of its various branches, shall be concentrated.

The Directors were not insensible to the discouraging influence, which expenditures so heavy at the commencement of the work, might have upon public opinion; but viewing the undertaking as one of high national importance, and duly appreciating the immense advantages it was destined to confer upon our own city, provided it should be executed in such a manner, as to give to the system, its full and most powerful development, after deliberate consideration, they determined to meet whatever obstacles might present themselves and, if possible to subdue them. Situated, however, as the Board were,—compelled by circumstances to press forward the work with unremitted activity, so as to afford, as early as possible, a demonstration of its results,—it could not but be expected, that greater expense must of necessity be incurred in accomplishing the object, than under more favourable circumstances would have sufficed; yet it is certain that the great cost of the first division, is more owing to the unfavorable situation of the ground, and the unavoidable expense of procuring the necessary stone and other materials upon it, than to any mismanagement or want of economy; and it is fully believed, that under no circumstances whatever, could the work have been executed upon the same line, within the same time, and in the same permanent and substantial manner, at any very materially less expenditure, than has been incurred. The stockholders have already been apprised, that the Board considered itself under an obligation, so to locate the road, as to be enabled to conduct it into Baltimore, at an elevation sufficiently high, to afford a connexion, by lateral branches, between its main stem, and all parts of the city now improved: this pledge, founded upon the principles of equity and justice, as all parts of the city had participated in the burden of the work, has been faithfully redeemed, although at a considerable additional cost to the company.

The service of officers, in whose experience, skill and judgment the Board place entire reliance, has been secured; a satisfactory organization has also been effected in the engineer department, and in the opinion of the President and Directors, a well digested plan for the future government and regulation of all the operations of the company, may now, and should without delay, be adopted, in which shall be clearly defined the duties and responsibilities of the officers and agents employed in its service. The knowledge and experience acquired, during the prosecution of the work, to the present time, with the justly inspired confidence of the public, will enable the Board to adopt and enforce such a system, as shall hereafter conduct the enterprise to its final completion, with all the economy which it will be practicable to observe in a great public undertaking, and will much diminish the labours and difficulties, which have hitherto been sustained by the officers and agents employed.

During the time we have been engaged in this work, many important improvements have been made, both in the constructions of Rail-roads, and in the application of moving power upon them, by which an immense reduction in the cost of transportation, and increase of velocity, have been effected; among these improvements may be noticed, the facilities which the combined cylindrical and conical wheels, invented by the chief engineer of this company, afford in turning curves. By the aid of this highly valuable improvement, all doubt is removed of our being able to employ locomotive steam engines, upon the Baltimore and Ohio Rail-road. This discovery is the more important to us, inasmuch, as, from the surface of the country over which our route must be conducted, numerous curves in the tracks will be unavoidable; and the great advantage of this form of wheels, consists in their so readily accommodating themselves to the degrees of curvature, upon the road, that there scarcely appears to be any perceptible obstacle to the passage of the cars, over these curves more than upon a straight line. Improvements have also been made in the construction of the turn-outs, and in various other minor fixtures, both on our road and cars. In the meantime, whilst our country is thus contributing its quota towards the improvement of Rail-roads, it is most gratifying to observe, that rapid advances, towards perfecting this most admirable system, are still making in the country to whose genius and science the world is indebted for its discovery; indeed, scarcely a month elapses, without our being apprised of some new invention which promises beneficial results.

Signed by direction, and on behalf of the Board,
Philip E. Thomas, *President*.
Baltimore, Oct. 11, 1830.

MISCELLANEOUS.

(From the New England Farmer.)

FRANCE AND ENGLAND.

The editors of the Bulletin des Sciences state, that the agriculture of England is much superior to that of France; and that the former country, with an unfavorable climate, and upon a soil not half so extensive as France, possesses six millions of sheep and 150,000 horned cattle, more than France. In England the soil belongs exclusively to 30,000 proprietors; in France there are four millinns of proprietors. Some appear to consider the small number of proprietors in England as the principal cause of the agricultural prosperity of that country, but the editors of the Bulletin think the cause may be found in the liberty and industry of the body of the nation, and in the favor and protection bestowed on agriculture, commerce, and manufactures, by the privileged class. Ignorance and prejudice are formidable obstacles to agricultural improvement in France, especially in the southern departments.

Breeding Animals and Vegetables.

Dr. Cooper, editor of the last edition of Dr. Willich's Domestic Encyclopedia, observes, that "The whole art of breeding animals and vegetables for particular purposes may be included in this direction:—Choose those animals or vegetables to propagate from, that possess the qualities you wish to propagate in the greatest perfection."

Sheep.—The number of sheep in England is estimated at 45 millions, in France 36 millions, in Spain only 14 millions.—*Bull. des Sciences.*

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* The magnitude of the first ten miles of the work, both as regards graduation and bridging, cannot be more clearly set forth than by reference to the report of the Superintendent of construction, from which it appears "that if the line be considered only to the summit of Parr's Ridge, 42 miles, then the centre of expense, both for graduation and masonry, is at the second crossing of the Washington Turnpike road, six miles from Baltimore: and, that if the line be extended from Baltimore to the Point of Rocks, a distance of 66 miles, then the centre of expense will be at the end of the first ten miles, or east of the first crossing of the Patapsco river: thus shewing that the graduation and masonry of the first ten miles, will cost as much as the graduation and masonry of the next fifty-six miles."

THE FARMER.

BALTIMORE, FRIDAY, OCT. 15, 1830.

INQUIRY.

MR. SMITH:

If any of your numerous correspondents will be kind enough to give me a cure for the bitter rot in apples, it will be received with pleasure, by

Your obedient servant, JACOB WOLTZ.

For the information of those who may wish to become subscribers to the American Farmer, as well as to refresh the memory of those now on our list, we have inserted at the foot of the last column, last page of this number, the terms at length on which the Farmer is published, and we respectfully request the attention of all concerned to their requirements. When it is considered, that the publication of this paper for one year, requires an out-lay of near ten thousand dollars; that the proceeds of this immense investment are to be collected in the small sums of five dollars from individuals residing in every State in the Union; and that upon this collection, promptly made, the existence of the establishment solely depends, we feel assured that the *terms* alluded to will not only be deemed fair and proper but strictly complied with by all liberal minded men;—and we have the gratification of believing that we have no other on our list. At this time the payment of arrearages for subscription will be not only in accordance with the conditions of the contract, but a favour conferred on the publishers.

TO CORRESPONDENTS.—The following articles, received too late for publication in the present number, will appear in our next:—Review of Prince's Treatise on the Vine, by "A." Continuation of descriptions of varieties of the Strawberry, by Mr. Prince of the Linnæan Botanic Garden. The Frederick Sheep, by R. K. Meade, of Frederick county, Va. with engravings.

EXCHANGE PAPERS.—In answer to applications from publishers for an exchange of papers with the American Farmer, we have only to state, that on the receipt of the difference in the annual subscription advance prices of their papers and the Farmer, we will send the latter during the time paid for. We cannot enter any more exchange papers on our list upon any other terms.

FARMING.—The following remarks are from the Christian Magazine, printed at Dover, Delaware:—

If one half the zeal, energy and expense, that blots so many gazettes with coarse and low abuse, setting the community by the ears for the sole gain and paltry purposes of a few demagogues and office seekers, were bestowed on the advancement of agriculture; if the people were half as ambitious to improve and beautify their fields, as they are to settle the nation; and half as angry with thistles, thorns and poor fences, as they are with their political opponents, who probably wish as well to the country as themselves, we should have more productive fields, less complaints of poverty, more ability to be charitable and munificent, and abundantly more good feeling. From Pittsburg, and indeed from Philadelphia to New Orleans, the son ploughs as his father did before him, and the great mass of farmers are as stationary in their theory as they are in their practice. Nine in ten of them believe, at this moment, that the book farming is a mere useless visionary dreaming of men that know nothing about practical agriculture.

We would tell them that England is the garden of Europe, simply because, almost every acre of ground cultivated *scientifically*, and on principles which have been brought to the test of the most rigid experiment. We would tell them that New England, of whose soil and climate they are accustomed to think, as consigned by Providence to sterility and inclemency, is the garden of the United States, only because the industrious and calculating people do not throw away their efforts in the exertion of mere brute strength—but bring mind and plan, and system, and experience, to bear upon their natural hard and thankless soil. On every side the passing traveller sees verdure, and grass, and orchards, in the small and frequent enclosures of imperishable rocks; and remarks fertility, won from the opposition of the elements and nature. After an absence of ten years, on our return to that country, we were struck with this proud and noble triumph, conspicuous over the whole region.

The real benefactors of mankind, as St. Pierre so beautifully said, are those who cause two blades of wheat to mature where one did before. The fields ought to be the morning and evening theme of Americans who love their country. To fertilize and improve his farm, ought to be the prime temporal object of every owner of substantial soil. All national aggrandisement, power, and wealth, may be traced to agriculture as its ultimate source. Commerce and manufactures are only subordinate results of this mainspring. We consider agriculture as every way subsidiary, not only to abundance, industry, comfort and health, but to good morals, and ultimately even to religion. We shall always sing, *Speed the plough.* We shall always regard the American farmer, stripped to his employment, and tilling his ground, as belonging to the first order of noblemen among us. We shall always wish him a bountiful harvest, good beer, and a moderate use of cider, and if he will rear it himself of the grape, but none of the pernicious gladness of whiskey; and we shall invoke upon his labours the blessing of God, and say to him, "peace be within thy walls."

WEST INDIA TRADE.—By an arrangement with the British government, our ports have been opened by proclamation of the President, to British vessels direct from the West India and other British Colonial ports, with the understanding that the Colonial ports will be opened to our vessels immediately on the receipt of the proclamation by the British government. By the act of Parliament authorizing the opening of the Colonial ports, the following articles are admitted into the British ports, from the United States, in American vessels, paying the duties annexed: Flour, 5stg. per bbl.; biscuit or bread, 1s 6d per 100 lbs.; corn meal or rye flour per bbl. 2s 6d.; wheat 1s per bush.; peas, beans, or Indian corn, 7d per bush.; rice, 2s 6d per 100 lbs.; shingles, 12 in. per M. 7s.; do. over 12 in. 14s.; R. O. staves, 15s 6d.; W. O. staves or headings, 12s 6d; white, yellow, or pitch pine lumber, 1 in. thick, £1. 1s.; other lumber, £1 8s.—Salt fish, pork, beef, bacon, and oil, are prohibited in foreign vessels.

By the same act, Kingston, (Jam.) Halifax, Quebec, St. Johns, (N. B.) and Bridgetown, (Barb.) are made free warehousing ports.

BOSTON MARKET, *Oct.* 9.

FLOUR.—There has been little business done in the Flour market since our last publication, and prices are without much change. The only sales of consequence which we have noticed are those for export, and consist of a lot of 400 bbls. Richmond City mills, at $5.75 cash, sold on landing; 400 do. Fredericksburg lowland, at $5.80, cash; 300 do. Alexandria mountain, $5.62½, 6 mos.; 200 do. Howard street, $5.50, cash; 150 do do $5.43¾, cash, the latter taken immediately on landing.

GRAIN.—The operations in the Grain market since our last, indicate an improvement on former prices, principally for white corn, which is scarce and in fair demand. The sales of the week are about 20,000 bushels white and yellow flat, at 59, 60, 61, and 62c. and round yellow 66 a 68 cts. Oats are well supported and the sales have been at 35 a 36c. [*Courier.*

From the N. Y. Journal of Commerce, Oct. 12, *noon.*

THE MARKET.—There has been a brisk demand for Flour yesterday and to-day, chiefly for Eastern coastwise shipment. The market is nearly cleared of Western and Troy, and we may quote a slight advance to-day of 6 cts per bbl. The tow boats to arrive this evening are expected to bring 6 or 8000 brls. for which there will be a ready demand. Ashes of both sorts are dull this week; the nominal prices are the same with which the last week closed, but there are no buyers. We have no variations to notice in other articles.

LATEST FOREIGN NEWS.

Accounts have been received from Europe, to the 2d of September. England had recognized the new French Government, and an insurrectionary movement had taken place at Brussels, one of the capitals of the Netherlands. Spain was in a state of ferment, and indeed France appears to be the only European government, that has not the fear of a revolution before its eyes.

General LAFAYETTE accepts of no salary as Commander in Chief of the National Guards. Marshal *Oudinot*, the former Commander, received a salary of 100,000 francs.

COTTON AND BREADSTUFF MARKET.

Extract from the Circular of Cropper, Benson & Co.

LIVERPOOL, *Sept. 1st*, 1830.

COTTON.—The market in the past month has been generally quiet and inactive; but notwithstanding, much firmness has been exhibited on all hands, and scarcely any alteration can be noticed in the prices. The total sales here in the past four weeks have not been more than 54,600 bags, of which 42,100 are American Cottons. The market this week so far has been very quiet, and rather heavy; but yet we cannot say that there is any absolute giving way in prices. Total import into the kingdom, 674,145; same period 1829, 636.325. Estimated stock in Liverpool, 31st Aug. 1830, 273,800; same period in 1829, 379,759.

GRAIN AND FLOUR.—Although the weather has not been uniformly good during the past month, yet it has on the whole been favourable to the harvest. In this quarter of the kingdom, and to the north, we have had occasionally a good deal of rain, which has retarded the ripening of the crops, but it is not supposed to have injured them; in the south and south east, our most important grain district, the weather has been more generally favorable, and there, a large portion of the crops is already secured.

The prospects of our own crops turning out much more productive than was at one time expected, together with the certainty that the large supply of foreign grain in bond, and yet to arrive, would soon be admitted at a very trifling duty, and thrown upon the home market, has produced a material, and latterly very rapid decline in our prices. Foreign wheat and flour, duty paid, are now offering freely for sale at rather lower prices than were obtainable in bond about two months ago; at these reduced rates there is however at present rather an extensive sale; the old stocks of British grain being almost totally exhausted, the current consumption must be mainly supplied by the foreign now admitted, until the new crop is brought into the market; and although the quantity is large, it will in all probability be absorbed pretty rapidly. The best foreign wheats are selling at 8s 9d a 9s 5d, inferior Russia at 7s 2d a 7s 5d per 70lb; the best American flour at 33s 6d a 34s 6d, and inferior at 31s a 32s 6d per brl. No inquiry for Indian corn. Duty for wheat per qr. 2s 8d; but the recent rapid decline in our prices will begin, in the course of a few weeks, to raise the duties again materially.

Prices Current in New York, Oct. 9.

Bees-wax, yellow .20 a 22½. *Cotton*, New Orleans .12 a .14; Upland, .11 a .13; Alabama, .11 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — *Flour*, N. York, bbl. 5.00 a 5.12½; Canal 5.12½ a 5.37½; Balt. Howard st. 5.62½ a ——; Rich'd. city mills, 5.62½ country, 5.25 a 5.37½; Alexand'a, 5.25 a 5.37½; Fredericksburg 5.12½; Petersburg, 5.25 a ——; Rye Flour, 3.50 a 3.62½; Indian Meal, per bbl. 3.00 a 3.25 per hhd. 14.00 a 14.50. *Grain*, Wheat, North, —— a ——; Vir. .90 a .95; Rye, North, 62 a 63; Corn, Yel. Nor. .63 a 65; Barley, 59 a 61; Oats, South and North, .27 a .35; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 9.50 a 9.75; prime a 5.50 a 6.00; cargo —— a —— Butter, N. York, 12½ a 15; shipping, 8 a 10; Lard, .12 a .15; Pork, mess bbl. 15.00 a 16.00; prime 10.25 a 10.75; cargo ——.

Prices Current in Charleston, Oct. 4.

Cotton, Sea-Island, .21 a 25. Stained .10 a 15. Santee, .20 a 23. Main, .20 a 23. Upland, inferior and common — a —, fair to good, .— a .—, prime to choice, .—— a .——. *Rice*, prime, $2.87½ a 3.00, inferior to good, do. $2.50 a .2.75. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $6 a 6¼. *Corn* .65 a .68. *Oats* 32 a .35; Peas, 60 a 63. *Hay*, prime Northern, 1. a 1.25.—*Whiskey*, Philadelphia and Baltimore, hhds. .34 a .35; bbls. — a —; New Orleans, old .35 a 36. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .20; Tallow, Carolina, 8. *Beef*, Boston, No. 1, .— a .9; Mess, 10½ a 11; New York Mess, .9 a .10, Prime, .6½ a .6¾; Cargo, .5½, nominal. *Pork*, Mess. .14 a 15. Prime, .11½ a .13½. *Bacon*, .6 a .7½ cents; hams, .9 a 11; Lard, 15 a 16. scarce. *Butter*, Goshen, .18 a .—; inferior, 8 a .12½.

DURHAM SHORT HORN BULL FOR SALE.

The subscriber has for sale a full blood improved Durham Short Horn Bull, six years old, by Champion out of Shepherdess. He is of fine size, very gentle, and in good order, price $100.

If not sold soon, he will be hired out by the year for $40 to a careful person.

Also for sale, by the subscriber, several half, three quarters, and seven-eighth blood Durham short horned Calves of the best stock, price 50 to 75 dollars; a fine half blood Cow with a Calf by a first rate bull, price $75; a Holstein Bull price $35; and two Bakewell Rams, price $22 each.

GIDEON B. SMITH,
American Farmer Office.

N. B. Letters on the business of the Agricultural agency, for the purchase and sale of stock, implements, &c. must come free of postage.

PRINCE'S TREATISE ON THE VINE, &c.

The Treatise on the Vine, 350 pages octavo, price $1.50, for sale by the following persons:—

Gideon B. Smith, Baltimore.
T. & J. Swords—C. & G. & H. Carvill, E. Bliss, Collins & Co. G. Thorburn & Son, } New York.
J. B. Russell—Boston.
James Winston—Richmond.
Joseph Simmons—Charleston, S. C.

Prince's Treatise on Horticulture—75 cents. Also for sale by most of the above persons.

ALSO NOW IN PRESS

PRINCE'S "POMOLOGICAL MANUAL,"

Comprising descriptions in detail of the various Garden Fruits, viz: Apples, Pears, Peaches, Plums, Cherries, Apricots, Nectarines, Almonds, Walnuts, Chestnuts, Mulberries, Quinces, Filberts, Gooseberries, Raspberries, Strawberries, &c. &c. The number of varieties therein described will be very great, and will embrace all those comprised in the new edition of Duhamel, a work for which the first cost at Paris is over $400; and also, the most important of those contained in the Pomological Magazine and other works of the highest note,—the object being to concentrate at a cheap rate all the pomological information necessary and requisite towards making a judicious selection from the great variety of Fruits, of such kinds as are best calculated to suit the wishes and purposes of cultivators.

This work will be published in two parts of about 200 octavo pages, *each part of which will be complete in itself*, and persons can subscribe for one or both as they think proper. The terms will be $1 for each part, which can be remitted in advance. The first part will be ready for delivery in October.

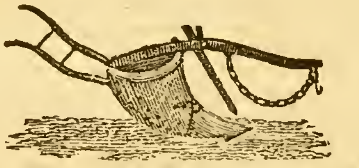
The readiest mode by which persons in the interior can obtain the above works is by applying to their local booksellers who correspond with the cities referred to. The books can also be supplied by the subscribers, and forwarded with the parcels of trees, &c. that may be ordered.

Orders for Trees, Plants, Grape vines, &c. will be executed with the utmost precision and dispatch, and the increased extension of the establishment, together with the extreme perspicuity exercised, will cause the articles hereafter sent to be superior in size, &c., to all former periods. The prices in the last Catalogues are much reduced, and the Camellia Japonica of above fifty varieties, and other Green-house plants, are therein offered at very reduced rates, the object being to enlarge the demand by a diminution in prices.

(Signed) WM. PRINCE & SONS.
Gideon B. Smith, Agent.

FRUIT TREES, &c.

As the season for planting has nearly arrived, we hereby inform our friends, and the public generally, that we have now ready for sale the following fruit trees, &c. which we warrant true according to catalogue, viz. Apple, Peach, Pear, Cherry, Apricot, Nectarine, Plum, Grape, Strawberry, Raspberry, Currant, Gooseberry, Fig, Thorn Quicks and Honey Locust for hedges, several thousand White Mulberry trees of fine vigorous growth and of good size for planting in orchard form, at eight dollars per hundred; also Horse Radish, Asparagus and Hop roots, and ornamental Shrubbery. All persons interested in so useful an establishment are invited to call at the Nursery, three miles east of the city, near Belleair road, where orders will be received, and carefully put up, according to direction, to carry to any part of the United States; orders also may be left at our store, Pratt street wharf; Baltimore, or at Dr. John Little's, Georgetown, D. C.



AGRICULTURAL IMPLEMENTS, of the latest improvement and most approved kinds, constantly on hand at our manufactory and repository, Pratt street wharf, the assortment of ploughs as will suit the various purposes of the farmer, and the different kinds of land for which they may be wanted; among them may be enumerated:—

The SELF-SHARPENING PLOUGH, of sizes from the seed plough to heavy three-horse ploughs.—McCORMICK'S IMPROVED PLOUGHS, with wrought and cast shares of the same model; which was represented in the last American Farmer.

WOOD'S PATENT CAST SHARE PLOUGH, BARSHARE PLOUGHS, also Sinclair & Moore's NEW IMPROVED PLOUGH, with wrought and cast shares of sizes for flushing and seeding, the six and seven inch sizes will be found particularly well adapted to seeding; particular attention has been paid to the quality of the castings, in order to give strength and durability.

WHEAT FANS of the most approved kind, STRAW CUTTERS of different kinds from five to fifty dollars. The large Self-Feeding Cylindrical Straw Cutter is made after the manner of the English box, with improvements, and will be found a very superior machine for the purpose.

Also Corn Shellers, Hay and Manure Forks, Cast Steel Axes, Hoes, Spades, Shovels, Garden Tools, and Garden Seeds, of a great variety of kinds, wholesale and retail; Clover, Orchard Grass, Herds, Timothy, Tall Meadow Oat Grass, and Lucerne Seeds, &c. &c.

October 15. SINCLAIR & MOORE.

BALTIMORE PRICES CURRENT.

Baltimore Market.—There is a further decline in the price of flour, the wagon price of Howard being $4.87½. Wheat and other grain remain the same as last week. Beef continues plenty and of course dull—it must be very fine to command our highest rate.

Tobacco.—Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 294 hhds. Maryland, 19 hhds. Ohio; total 313 hhds.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard-street 5.00 *a* ——city mills, 4.75 *a* ——Susquehanna, ——; Corn Meal, bbl. 2.25—Grain; red wheat, .90 a .93;——white do. 95 *a* 1.00—common red ——Corn, white, .55 *a* .56—yellow .56 *a* .57—Rye, .50 *a* .52——Oats, .26 *a* 27½ Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 5.50 *a* ——Timothy, 2.50 *a* 3.00—Orchard Grass, 1.25 *a* 1.50——Herd's, —— *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, —Flaxseed 95 *a* 1.00-Cotton, Va. 9½ *a* 10½-Lou. 11½ *a* 13—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½—Upland 10 *a* 12-Whiskey, hhds. 1st p. .31 *a* —; in bbls 31½ *a* 32—Wool, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. 4.50 Mackerel, No. 1, 3.70, *a* 3.75—No. 2, 5.75 *a* 6.00—No. 3, 3.70 *a* 3.75--Bacon, hams, Balt. cured 10c.-Feathers, — *a* 35---Plaster Paris, cargo price per ton, 4.25 *a* —— ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.00 *a* 4.50—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—Hickory, $4.50.

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3. When once sent to a subscriber, the paper will not be discontinued without a special order from the subscriber; and then not till the end of the year of his subscription that shall be current at the time of receiving such order.
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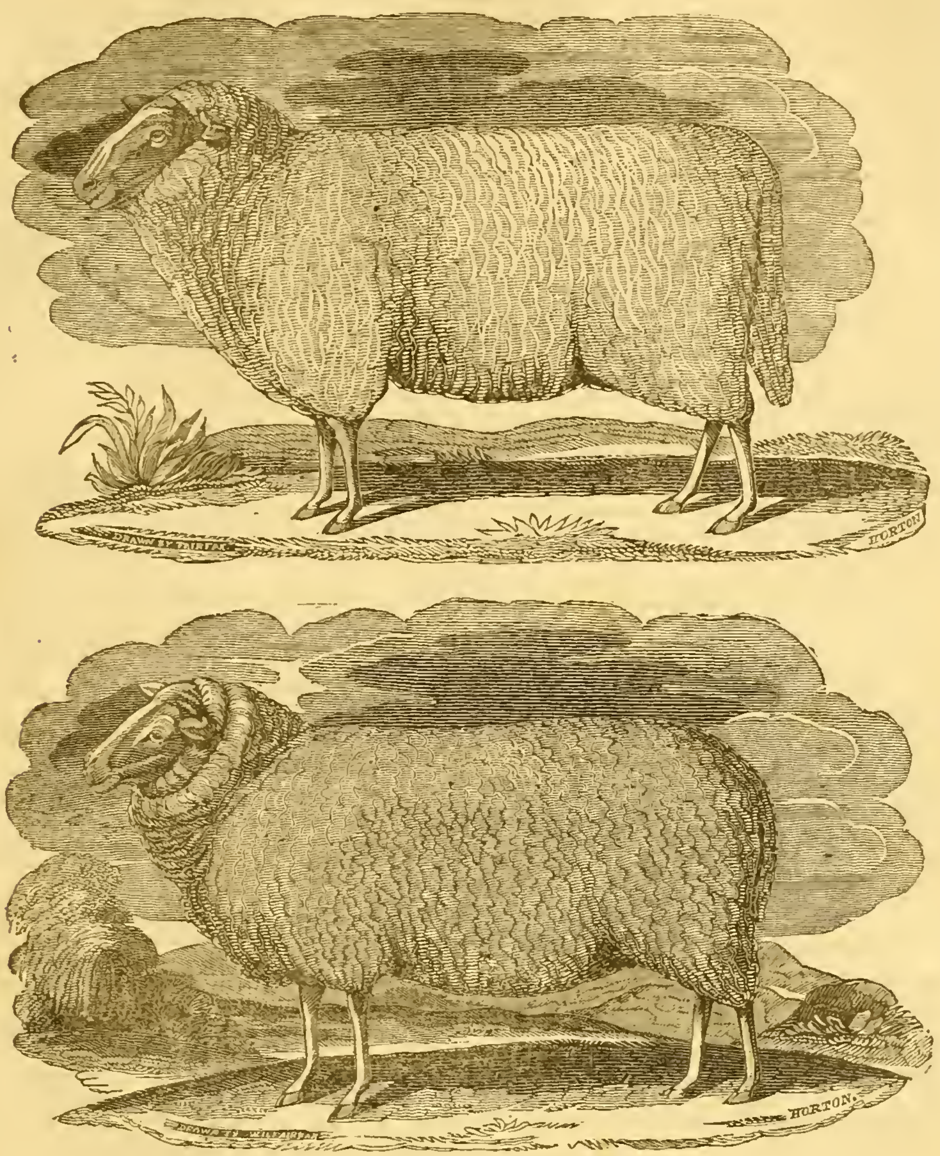
AGRICULTURE.



MR. MEADE'S FREDERICK SHEEP.

White Post, Frederick Co., Va.
Gideon B. Smith, Esq. *Oct. 4th*, 1830.

Sir,—With the drawings of a pair of the Frederick sheep, I beg leave to offer you a few brief remarks, well knowing how important it is to the conduct of your valuable journal, that communications should be as concise as possible. As they are brought so fully to the view of your readers, I trust that a short history of their origin and progress will not be uninteresting to them. Their present character may be inferred from the subjoined certificates, their appearance, from the engravings, and their general history, from these hasty remarks. More than twenty years since an old mutton stock left me by my father, was crossed by the Arlington long wool, improved by G. W. P. Custis, Esq. the friend of Washington and Fayette, and one of the earliest advocates of the American system, from the Persian stock of Mount Vernon, remarkable for their length and silkiness of wool—at that period, an average of 8½ lbs. was shorn from a flock of 124 sheep. The Clermont merino of New York, introduced by Chancellor Livingston, from the national farm of France, was the next cross—the introduction of the small Spanish merino during the war, brought the average of fine wool down to four or five pounds, and no mutton worth a place on the farmers' table—recourse was again had to a large mutton cross, with heavy fleece, fine form, and wool of moderate quality. Ever since, a period of more than fifteen years, selections have been made with a view to the combined advantages of size, mutton, quantity and quality of the wool. If an in-and-in system has been pursued, it has been prosecuted on a scale, and in a way differing in a great degree from the ordinary manner of keeping up a close alliance of the same strain and model, which by an obstinate adherence to, will spoil the finest stock in the world; in what way, and through what circumstances would involve an argument and dissertation which I have neither the ability nor time to do justice to. Great uniformity of appearance, thought so essential by some breeders, is here dispensed with for two reasons.—1st. That animals may differ in their form and appearance, without losing those essential qualities which constitute their excellence. 2nd. The demand for them as coming from differing soils and climates, can be best suited by keeping up a variety, as respects length and quality of wool, and the size of bone, which involves more or less the quantity of wool, and weight of carcase for mutton. Twenty years since, I thought myself a sufficient judge of sheep to select such ram lambs as would be best to breed from when they were but four or six months old—experience taught me, I was in great error—ten years afterwards I believed I had arrived at perfection in a mode of selection, by postponing the choice until the removal of the first fleece had developed their qualities—and now the extended experience of another ten years, has convinced me that it is impossible to judge of the general character of sheep until they have completely assumed their form by a two or three years' growth. My breeding ram of the present year is a selection from more than twenty-five old sheep, as I turn out all my ram lambs with the exception of a few of the most indifferent, which yield me mutton weighing from 80 to 100 lbs. at two and three years old—this is a very expensive plan, and one which but few could think of pursuing—and the sale of them at $25 each, at twelve or eighteen months old, or a very extraordinary one at a higher price, does not more than remunerate me for the risk and trouble of attending to them—the qualities and properties of this animal are more easily changed by good or bad management, than in any other of our domestic kind, and if I were regardless of the quantity and quality of their wool, it would be as easy to raise sheep for mutton weighing from 100 to 150, as it is now, under the disadvantage of castrating only my most indifferent lambs, to have them weigh from 80 to 100—but with their present product of wool, if the ram lambs generally were castrated, they would exceed an average of 100 lbs., at two and three years old—at the next shearing, (should life and health be spared us,) satisfactory evidence of their mutton qualities and propensity to fat, will be offered. The improvement of sheep has never with me depended upon the fluctuating value of the animal, or the price of their wool, but has proceeded from a fixed principle and sentiment, that it is of primary importance to individuals, and scarcely less so to the community, to double the fleece, improve its quality, and enlarge at the same time the carcase, as if the price of wool had been always great—that is to say, their quality should be uniformly sustained of whatever breed they may be, and then their numbers may be regulated by changing circumstances to meet the market, whether high or low. Experience, and accidental occurrences prove with regard to improvements in the animal, as well as in the vegetable creation, that occasional crosses and changes are essential, and that it requires the most constant vigilance in man, to watch their progress, change, and decline, in order to a timely succession—this, if at all necessary, would be a further means of expanding the evidence in favour of the truth of the Scripture assertion, that man must toil vigilantly and incessantly with both mind and body, if he expects to meet with great success, as the secrets of nature are such that the greatest strength and extension of his faculties will never be sufficient to fathom the works of creation. Information has been frequently solicited in regard to the management and diseases of sheep, as if some very extraordinary skill or knowledge had been applied. The time has gone by, when plain and simple matters of fact, or some fortunate observation, the effect of much diligent attention, can be wrapped up in profound mystery, and made to operate for the exclusive benefit of some fortunate or much famed breeder. Whenever real success has attended the improvement of domestic animals, it has been by adapting the nature of the animal to the means provided for its support, and checking by constant observation every propensity to depart from a direct line of improvement. I profess but little skill in their management—it has not been very long, that by an injudicious selection of a ram, I found myself thrown back perhaps two years in the line of improvement—but the error affords an insight which may upon the whole be beneficial, it is hoped, on a more extended scale. As it regards their diseases—candour must acknowledge an entire ignorance (practically) on the subject—the voluminous and scientific essays which come to us from abroad, have as little bearing as use to every American shepherd, who does not crowd numbers of sheep on the same grounds, sufficient of itself to originate disease. An affection of the head which makes its appearance once in every five or six years, and perhaps carries off as many fat subjects, is the only malady I have ever known since the extermination of the scab introduced by the Spanish flocks about the time of the war—and I believe this disease of the head is more the effect of peculiarity of season than any thing else, and difficult to be accounted for as some of the complaints incident to the human frame. Their general health, then, depends upon an attention to a few simple practices—their numbers to be governed by the size and quality of their pasture—but flocks exceeding fifty or one hundred, should have frequent changes, or have an extensive wood range: a firm, old sod is indispensable at some seasons to the prosperity of sheep, and should always be their main support,—all other pasturage should be considered auxiliary, and is often injurious when not used with circumspection. A small supply of salt and meal mixed half and half, twice a week, with an occasional use of tar in their troughs is highly essential—their winter keeping, must depend much upon the soil and climate, and the severity of the season—sheltering should be made optional with them—but they should never be confined in any place, great or small, where a damp effluvia may arise—their nature plainly teaches that they require a high, dry, and cool situation at all times. If it were not unreasonable to ask your further patience, I would go into some detail of the manner of providing for a flock of seventy ewes last fall and winter, with their lambs; but the simple facts are, that they were sustained from the 1st November, (when they began to have their first set of lambs,) throughout the winter on five acres of orchard grass, and five acres of turnips and rye growing together, after six hundred bushels of the former had been housed for the use of the short horn calves, &c.—this, together with half a pint of meal per day, for each individual for three months, was the only cost of the seventy ewes, raising eighty odd lambs, in addition to their English, and blue grass sod. It was very evident that the lambs were weaned six weeks sooner with great advantage, in consequence of this uniform allowance of meal, as they always feed eagerly with their mothers. The same ewes had in May following more than forty lambs, an increase not desirable, and unexpected—a favourite ram being permitted to remain with them too long, never counting on the possibility of their receiving him so soon after their yeaning. Notwithstanding this hard breeding, they are known to be fine mutton at this time. It has been, and is my desire to spread this race of sheep wherever they may be acceptable in our country.—I have endeavoured from time to time, in my humble way, to prove the great importance of improving this race of animals—have essayed through their medium to advance the interests of agriculture, by offering gratis to any state Agricultural Society, (which I now repeat with great pleasure,) a ram of this breed, or a pair of them to any Agricultural Society in Virginia, having funds equal to $100 for five years. They can be delivered in Alexandria, and from thence be sent by steam-boat to any part of the United States. Very respectfully, yours,

R. K. Meade.

CERTIFICATES.

I do hereby certify, that I have this day seen the following parcels of wool very carefully and accurately weighed, from the superb flock of Richard K. Meade, Esq. of Frederick county, Virginia, to wit: 34 fleeces of young ewes, 280 lbs. average 8¼ lbs.; 28 fleeces of young rams and wedders, 290 lbs. average 10 1-3 lbs. Average weight of 62 sheep, 9 1-5 lbs. The entire parcel of wool is of very superior quality, most of it of extraordinary fine texture. It is dry, remarkably clean, and in fine merchantable order. H. S. Turner.

June 3d, 1830.

I attended Mr. Meade's sheep shearing, and have no doubt of the correctness of the above certificate. I saw eight fleeces of the young ewes weighed, which were over 70 lbs. I have long been acquainted with Mr. Meade's flock, and am well convinced of their very great improvement under his management.

Philip Nelson.

I do hereby certify, that I was present when a large proportion of the above mentioned sheep were shorn, and that I am well assured, from personal and particular observation, of the entire and minute correctness of the foregoing statement in relation at once to the quantity and quality of the wool.

I do further certify, that my own flock of sheep affords most manifest and conclusive proof of the very great and immediate benefit resulting from the crosses of Mr. Meade's rams on our ordinary ewes, as the progeny derived from the first cross has yielded nearly double the quantity of wool formerly yielded by my own sheep; and farther crosses have in some instances afforded from 11¾ lbs. to 13½ lbs. of wool, in quality abundantly fine for any domestic use whatever.

June 26, 1830. T. F. Nelson.

Providence, July 9th, 1830.

In the month of June 1828, I purchased of R. K. Meade a ram of his Frederick breed, weighing 168 lbs.—fleece of excellent wool, after the tags were carefully removed, 14 lbs. I have this spring shorn 50 lambs by said ram, 47 of which were sheared on my farm, averaging 7¾ lbs., the remaining three, being the finest of the males, were given to my sons—2 shearing 10 lbs. each, the other 9 lbs. My former stock of sheep, previous to any crosses from the Frederick breed, with their naked legs and bellies, produced only from 3 to 3½ lbs. of wool washed on the back. But it may be proper to remark, that I now take better care of my sheep than formerly.

John Kerfoot.

We the undersigned, justices of the peace of the county of Frederick and state of Virginia, being well acquainted with the above certifying gentlemen farmers, believe their statements to be true, from their well known reputation as men and farmers, as well as from our own general knowledge of the facts themselves. Given under our hands this 24th August, 1830.

Jno. W. Page, David Meade,
Robert Vance, J. Baker.

Leesburg, Va. Sept. 2d, 1830.

This is to certify, that I have been employed by R. K. Meade, Esq. in making drawings of some of his Frederick sheep; and in the performance of the same, so many were the subjects in point of form and appearance, though marked by their peculiarities, that the said Meade appeared to be much at a loss which to select as a model either from the ewes or from the rams. Wm. H. Fairfax.

By the admission of the Rev. Bishop Meade, (whose testimony is more willingly and appropriately afforded to a more important race of animals,) 7 lbs. of wool has been for some years shorn from 150 to 200 sheep, yielding such wool as has averaged in the last 15 or 18 years 35 cents per lb. This flock has been raised by rams from the stock of Richard K. Meade, by a regular succession.

The Selectmen in Amesbury and Salisbury, (Mass.) have determined not to recommend any one to retail spirits in those towns. The Selectmen of Newbury, have been forbidden, by a vote of the people, to grant any licenses.

(From the New England Farmer.)

SIGNS OF A GOOD FARMER.

His corn land is ploughed in the fall—his bull is from two to five years old, and he works him. He seldom lets his work drive him. Has a cooking stove with plenty of pipe to it. The wood lots he possesses are fenced. His sled is housed in summer, and his cart, ploughs and wheelbarrow, winter and summer, when not in use; has as many yoke of good oxen as he has horses—does not feed his hogs with whole grain—lights may be seen in his house often before break of day in winter—his hog pen is boarded inside and out—has plenty of weeds and mud in his yard in the fall—all his manure is carried out from his buildings and barn-yard twice in the year, and chip dung once a year—his cattle are almost all tied up in the winter—he begins to find out that manure put on land in a green state is the most profitable—raises three times as many turnips and potatoes for his stock as he does for his family—has a good ladder raised against the roof of his house—has more lamps in his house than candlesticks—has a house on purpose to keep his ashes in, and an iron or tin vessel to take them up—he has a large barn and a small house—seldom has more pigs than cows—adjoining his hog pen he has a hole to put weeds and sods, and makes three loads of best manure from every old hog and two from every pig. A good farmer in this country begins to find out that steaming vegetables can be done at one third the expense of boiling—and that Mangel Wurtzel, Millet, Altringham Carrot, and Ruta Baga are things worth thinking of—he fences before he ploughs, and manures before he sows—he deals more for cash than on credit.

HORTICULTURE.

A TREATISE ON THE VINE,

Embracing its history from the earliest ages to the present day, with descriptions of above two hundred foreign, and eighty American varieties; together with a complete dissertation on the establishment, culture, and management of Vineyards, by William Robert Prince, *aided by* William Prince, *Proprietor of the Linnæan Botanic Garden, Vice President of the New York Horticultural Society, &c. &c. &c. New York*, 1830, *pp.* 355.

The public has been for some time in expectation of the appearance of Mr. Prince's Treatise on the Vine, which has recently issued from the New York press. The long experience of the elder Mr. Prince, who has devoted so much of his attention to the subject of the vine; and who has been for twenty years engaged in importing and cultivating the finest varieties of Europe, as well as bringing into notice many of our native kinds, has caused the lovers of this interesting plant to look forward with great anxiety to the publication of this work. No American perhaps was so well qualified as Mr. Prince to render such an acceptable service to the public. He was, moreover, one of the first persons who strenuously contended that the vine must succeed in the United States. Amidst the diversity of soil and climate which our country presents, from the Gulf of Mexico to the 45th degree of N. latitude, and from the Atlantic ocean to the western wilds, in the same zone with the celebrated wine countries of Europe, he could see no just reason why we might not in time become equally successful in the cultivation of this plant; and, with sufficient experience, rival its productions in the other hemisphere. What was then a matter of speculation, is now in the full tide of successful experiment. Many of our most intelligent citizens are engaged in rearing the vine; fruit of the most delicious quality has been raised; extensive vineyards have been planted in some parts of the country; and excellent wine has been made from them. Even societies have been formed to promote an extension of this culture.

That there may have been some disappointment experienced by individuals in the degree of success which they have attained, is very probable and not to be wondered at. Our native vines are seen every where in rich luxuriance, extending their branches over an ample space, and yielding burthens of fruit without any care from the hand of man. Hence it was not unnatural to suppose that even the foreign vine would prosper in our gardens, and bear as abundantly. Expectations founded on such conclusions could never be realized, and hence some failures have been the result.

More correct practices, however, obtained in time, and a considerable increase of knowledge was diffused; but as the vine has been extended in a much greater degree than just principles of culture have been adopted, there became consequently a proportionate demand for correct rules applicable to this branch of industry. It was to supply this want, and at the same time to stimulate to still greater exertion, that the Treatise of Mr. Prince has been published. No effort has been spared to render it in the highest degree useful and acceptable, since not only has the particular adaptation of our own country to the vine been fully considered, together with such departures from the foreign mode of culture as our experience has suggested to be profitable, but all the information which could be derived from the best European authors has been collected in relation to the whole duties of the vine-dresser. It was one great object of the author to present in his work the concentrated intelligence of every clime, derived from all the experience of the past, for the benefit of the American horticulturist. The most careful observation and the greatest research have evidently been made to render the offering as acceptable as possible.

As many persons seek with avidity every thing connected with the vine, it may not be uninteresting to give a brief sketch of the contents of this Treatise; suggesting at the same time to every person who has half a dozen vines that he could not expend a dollar and a half more appropriately, than in purchasing the work. It may be taken for granted that no one who has ever feasted once upon this delicious fruit, but would be well pleased to raise enough for his own use; and whoever has succeeded in raising enough to supply his own wants, has no doubt felt that passion common to all who are fond of the vine, namely, a desire to extend his stock and introduce into his collection still finer varieties. It is certainly one of the most delightful and ennobling pursuits that can engage the attention; a fact, which may enable us to account for the enthusiasm which invariably seizes the minds of those who become in the least enamoured of the subject.

Amongst the many strong considerations which should recommend Mr. Prince to our favour, not the least is the one, that he is an American in feeling as well as by birth. He takes a deep interest in the prosperity of our country, and he has employed his pen, not so much with a view to his own profit, as from the laudable desire to instruct his fellow-citizens on the important subject of which he treats. Wishing to see every branch of industry thrive, and to extend the sphere of usefulness as much as possible, he has devoted all his energies to prove the adaptation of his country to the extensive introduction of the vine. In a most admirable and beautiful argument, founded upon known facts relative to other fruits, he demonstrates this to the satisfaction of every one who may read it. Under these patriotic feelings, he has not inappropriately inscribed his Treatise to a distinguished statesman, whose life has been closely connected with the prosperity and independence of our Union. The dedication is remarkable for its neatness and simplicity, written in the spirit of one freeman addressing himself to another.

Mr. Prince commences his work with a brief historical account of the vine from the earliest times, which contains a good deal of curious information. He traces the origin of this plant to Asia; indeed he goes so far as to fix upon Persia as its native land, though the evidence which he adduces in favour of this opinion is not altogether striking. From Asia its culture was extended to the southern parts of Europe. Its progress was at first slow, but as its advantages came to be better known, it was communicated with an inconceivable rapidity when contrasted with the difficulty which exists in the present day in causing the best precepts and best modes of culture to be adopted. The vine was very early transmitted to the Narbonese province of Gaul, but the cold was so intense beyond the Cevennes that it was deemed impossible to mature the grapes so far to the north. The climate had not become ameliorated to the degree it afterwards attained by cultivation; and the vine being a native of a much more southern region, needed that acclimation by culture which it subsequently attained. As these difficulties were surmounted, vineyards were gradually established in the interior parts of the country. Kings and princes did all in their power to promote its extension by planting vineyards on their own account. Through a long course of time, the vine has become so completely naturalized in that generous climate, and has attained such full development, that it might now be supposed it was its native region. These facts with many interesting particulars are very appropriately narrated; and may very justly lead to the conclusion that our own climate, without waiting for the softening and ameliorating hand of time to work a change in its temperature, is already sufficiently genial to invite an extensive cultivation of the vine, even if we had no native varieties of our own capable of withstanding every vicissitude of season.

The author next devotes some chapters to a consideration of the effect of climate, soil, exposition, &c. upon the flavour of the grape, and in a series of very sensible and forcible remarks, examines the subject in detail. There is a fund of valuable information on all these points, which should be referred to by every person who wishes to acquaint himself with the proper manner of locating his vines.

We are next treated with descriptions of a vast number of the most estimable grapes, both for wine and for the table, amounting to upwards of two hundred foreign, and eighty native varieties. These descriptions are frequently very minute, being in most instances made from a particular personal examination of the fruit. The extensive nurseries of the author, in which he has planted two standard vines of every variety, for the purpose of testing their merits and of submitting them to the inspection of visiters, have enabled him to enjoy an advantage in perfecting this part of his work, which very few persons have had an opportunity to possess. So faithful and ample are the descriptions in many instances, that persons having the vines in their possession and being ignorant of their names, will find no difficulty in identifying them.

This part of Mr. Prince's Treatise contains a great deal of exceedingly valuable information to the scientific horticulturist, as well as to the practical man. He appears to have taken the utmost pains to render the Nomenclature as perfect as possible. The importance of this branch of the subject cannot be too highly estimated. It is within the knowledge of almost every person that the same fruit oftentimes passes under entirely different names. From a want of due care in preserving and perpetuating that which most properly appertains to it, it will not unfrequently take the name of the person who may have been instrumental in extending it, or of the place from whence it has been obtained by a new cultivator; the effect of which is to produce immense confusion, and to unsettle that which might with very little trouble, have been established on a solid foundation. So deeply rooted is this evil in Europe, that though the most scientific men have endeavoured to eradicate it, their labour has been in a great measure without success; and if it is permitted to become effectually transplanted in our young country, we may find equal difficulty in getting rid of it. It cannot be too forcibly impressed upon the minds of those who either collect or distribute vines, to use the utmost caution in giving them their proper names. Nothing can be more mortifying than to be at considerable trouble or expense to procure a plant which may happen to bear a high sounding title, and nurse it with the greatest tenderness under a belief that it is something very rare; and after all, when it bears fruit, to discover that we had it before, or were well acquainted with it; and that perhaps it is of no great merit. A valuable part, therefore, of the Nomenclature, is the very careful arrangement of all the synonymæ, which Mr. Prince has made. These are so numerous as it regards some of the foreign vines as to amount sometimes to fifteen or twenty; and even our own native "Bland" has acquired almost a dozen titles, under each of which it is cultivated in some district of country. It is therefore very obvious that every attempt should be made to rescue this subject from such endless confusion. Mr. Prince recommends that the Agricultural and Horticultural Societies should take it under their care, for much no doubt yet remains to be done.

Surprising as it may appear, not less than eighty *native* varieties are enumerated and described in the Treatise. It is already well known that some of these are exceedingly valuable, being at the same time pleasant for the table, and possessing those qualities necessary for making an excellent wine. It is extremely probable that many of the others will be found to be no less deserving of cultivation. With a public spirit and liberality truly honourable, intelligent persons from all parts of the country have vied with each other in sending their rich contributions to the extensive nurseries of the author; and have been free in imparting all the information in their possession relative to their merits. A noble and generous feeling seems to have animated all hearts. Mr. Prince does not fail to dwell on this interesting development with delight and enthusiasm; he even compares the spirit which prompted these spontaneous offerings, to that which animated the people of France in that joyous period of her history, when the emperor Probus restored the vine to that lovely country; and when songs of rejoicing were heard on the hills and in the plains, on being again permitted to cherish the beloved and long lost plant.

There can be no reasonable doubt that there are many valuable varieties of our native vines that remain to be discovered. It would be well for every person who seriously directs his attention to the culture of the grape, to make a careful examination in his own neighborhood, that he may at least contribute one more valuable kind to the general stock. By this attention, many which now waste the fragrance of their flowers upon the desert air, and whose delicious fruit is only picked by birds, might be brought into successful cultivation and prove to be great acquisitions. It is the opinion of many intelligent persons that we should chiefly rely upon our native varieties for the purpose of making wine; though the general opinion that the quality of the foreign grape is so much deteriorated by a change of soil and climate, as that its product no longer resembles that which was derived from it in its original locality, is most probably founded on error. That there may be some change is not improbable. But many of the foreign vines produce very abundant crops; and Mr. Herbemont of South Carolina, a gentleman whose zeal, intelligence and experience are so well known, has made a very rich and delightful wine from his "Madeira," supposed to have been originally brought from the island of that name. Other kinds have also been found to yield a very pleasant wine. Much of the disappointment which has resulted from our endeavours to raise foreign vines, has in all probability proceeded from our ignorance of their management, and from a desire to obtain too much fruit before they arrive at a state for mature bearing. No change of soil and climate can produce any alteration in the distinguishing characteristics of any variety of this plant: the same general appearance of wood and foliage remains identical. With due attention, therefore, it is reasonable to suppose that the fruit itself will not undergo material change for the worse, as some persons have contended: on the contrary, it can be established in numerous instances that the most abundant crops of the most delicious quality, have been raised in various places in this country from the exotic vine, not at all inferior to what they are in France. In the vicinity of Baltimore this fact has been completely verified; and even as far north as Boston, singular as it may appear, not less than one hundred thousand pounds of grapes are annually raised in the neighborhood of that city. We cannot, therefore, but consider the sentiment which seems to prevail of laying aside the foreign species, as founded on a very imperfect trial of their capacity for production.

We would not, however, by any means, be thought to discourage the extensive propagation of our valuable native varieties. In the eastern world, as Mr. Prince very justly and forcibly remarks, they have never possessed but *one* species of the vine; whereas in America we have not less than four or five, indigenous to the country. By long and continued cultivation, the qualities of these natural productions of our soil, may become so ameliorated, as to be equal perhaps in every respect, to the most celebrated varieties of Europe: for it was only by subjecting them to similar treatment, that such transcendant varieties have been obtained. Let us, therefore, not despair of equal success, though the time may be somewhat distant.

After this, perhaps unseasonable, digression, it is proper that we return to the Treatise, and give some account of the concluding part of the work, which forms one of the most valuable portions of its contents. Succeeding the descriptions with which we are favoured, of so many delightful varieties of the grape, and after devoting some pages to the distinctive characteristics of our native species, Mr. Prince enters upon the subject of culture. This he divides into three parts: first, great or vineyard culture, comprising that of fields or plantations on an extended scale for the manufacture of wines, brandies, and raisins: second, small or garden culture on a more limited scale, for the supply of markets with fresh fruits, or for family supplies alone: third, hothouse culture, where artificial heat is resorted to, either to obviate the effects of climate or to advance the maturity.

The author treats at considerable length whatever relates to these modes of cultivation. He is so ample and minute that scarcely any thing is left untouched. The preparation of the ground; the planting of vines; the most approved manner of raising vines from cuttings, the operations of layering and engrafting; the location of vineyards with enclosures suitable to protect them; propping and training according to the various methods which have been found to succeed best in different climates, from the low to the high trained vines, and from the common trellise to that admirable system of espalier by which the delicious and highly gilt fruit of Thomeroy is perfected, with several other modes applicable to particular circumstances; all this, with every form of management which can contribute to the prosperity of the vine, or the fullest development of the fruit, is dwelt upon with minute attention. It would extend this article much beyond a proper limit to endeavour to condense the views of the author on these important subjects. They could not in any event be so well understood as by consulting the work itself, where the reader will find all elucidated in a clear and satisfactory manner.

Appended to the Treatise is a catalogue of all the vines in the extensive gardens of the author, amounting to not less than five hundred varieties; affording ample selection for every diversity of soil and climate, where the vine may be brought to flourish.

Thus far we have only spoken of the work in connection with the subject, because it is naturally more interesting on that account. But it would be an unpardonable omission to pass over it entirely without paying a tribute to its literary merits. Mr. Prince has not only been able to impart a vast fund of information to his readers, but he has evinced a talent for doing it in a perspicuous and agreeable manner. His language is well chosen and engaging; full without being redundant; easy, flowing and frequently nervous; and where the subject admits of it, abounding in classical allusions. It is evident that it is for the most part, the effort of an ardent and sprightly mind, devoted enthusiastically to the vine. And if we sometimes discover some indication of almost youthful fervour, which might induce sober age to indulge in a smile; yet he who has ever known what it is *to love and to cherish the vine,* will duly appreciate any occasional exuberance of feeling, and have a higher opinion of the generosity and amiableness of the author.

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(Communicated by Mr. Prince, of the Linnæan Botanic Garden, for the American Farmer.)

CHOICE STRAWBERRIES.

New Hudson. *Pr. supt. cat.*

This strawberry was raised from seed about six years since, in a garden near New York. The fruit is large, being about the same size as the old Hudson, from which it probably originated, but in point of form it is more rounded and less pointed at the extremity. The fruit stems are also more upright, and seldom fall down and settle near the earth as is often the case with that variety—on the other hand it is not so great a bearer, and consequently less valuable in this respect.

Southborough Seedling. *Pr. cat. №. 28.*

The fruit of this variety is of the very largest size, and it ripens gradually, some portion being much later than others. The growth is remarkably upright, and of the most vigorous character; the leaves are very large, supported on long and strong petioles; the fruit stems are also very large and strong, elevating the berries much more than is commonly the case, which from these causes seldom or never touch the earth. In point of shape the fruit resembles the Hudson, but it is of larger size.

French Musk Hautbois. *Pr. cat. №. 24.*

This fruit is more round or globular than most of the other *Hautbois* varieties I have seen; it is very dark when fully ripe, being of a blackish purple colour. The plants are exceedingly productive, and yield some fruit after the regular crop is past, and flowers may even be here and there seen, when the main crop is at perfect maturity. The flavour is high and musky, and the fruit is much esteemed by those who are partial to this class of strawberries. The average period of ripening of the principal crops of strawberries was in this vicinity during the present season from the 25th May, to the 25th of June.

Knights, No. 14. *Pr. cat. №. 20.*

The fruit of this variety greatly resembles the old Pine apple strawberry, both in its flavour, form and manner of growth, and the plants also assimilate in their proportionate produce; the berries are rather compressed or flattened, and are rounded at the extremity; they generally trail near the earth, and may in point of flavour and excellence be ranked among the best.

Roseberry. *Pr. cat. №. 21.*

This is a very high flavoured and productive variety—the fruit has a neck and separates readily from the hull; its form is oblong and pointed; the plant is not of tall growth, and the berries are of medium size. It is very extensively cultivated near London for the supply of the markets of that city, and is also deemed one of the best for forcing during the winter.

New, or Black Musk Hautbois. *Pr. cat. №. 18.*

The appearance of this plant is much the same as the other varieties of its class—its growth is quite strong, and indicative of health and vigour; the fruit is oblong and pointed somewhat obtusely; it is a profuse bearer, and one of the best of its class for a market fruit.

Long Conical Hautbois.

This variety I raised about three years since, from seeds received from Paris, under the title of *Raspberry flavoured strawberry;* it differs from the other kinds in my collection, the fruit being of a very long conical form—it produces well, and I have noticed that some of the plants have blossoms on them when the main crop is fully ripe.

Nairn's Scarlet. *Pr. cat. №. 31.*

This strawberry, judging by the foliage, is evidently of the same class as the old Hudson variety; the fruit is also of about the same size, but much less pointed; and although this kind bears well, it does not equal that variety in abundance.

Keens' Imperial. *Pr. cat. №. 15.*

The fruit of this plant is large and rounded at the extremity, but with somewhat of a point. Its growth and general appearance denote its alliance to the Pine apple class of strawberries. It was originated by Michael Keens, an intelligent cultivator of fruits, living near London.

(To be continued.)

SINCLAIR & MOORE'S NURSERY AND SEED GARDEN.

We, the undersigned, having recently visited the Nursery and Seed-raising Establishment of Sinclair & Moore, near this city, were much gratified with its present appearance and extent, as well as future promise. From observation and information, we think there are about 20,000 fruit trees and shrubs now ready for sale, and as many more in progress. We also saw standard trees planted out, said to be a choice collection of about three hundred, for the purpose of taking grafts, buds, &c. as they are wanted for the Nursery from time to time.* The vegetables for raising seed appeared to be true and genuine of their kinds; and indeed the whole establishment seemed to be conducted with great neatness and apparent correctness. In short, we are of opinion that it is in a fair way to be an highly beneficial addition to the horticultural resources of our state.

We therefore recommend it to the notice and patronage of farmers and horticulturists, as one upon which we are persuaded they may with confidence rely, for trees, shrubs, and garden seeds, of the most approved kinds.

Robert Oliver,
J. S. Skinner,
H. V. Somerville,
Silas Marean,
Rich'd Cromwell,
Henry Thompson.

VEGETABLE EXTRACT.

In the north of France an excellent extract of the herbs used in soups and broths is made by boiling them very slowly with a sufficient quantity of salt, and afterwards evaporating the fluid. A little of this extract, dissolved with gum arabic in hot water, is said to make capital soup.—*N. E. Farmer.*

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* Many of these standards, and a large proportion of the scions now ready for transplanting, are from buds of Mr. Richard Cromwell's most esteemed varieties.

RURAL ECONOMY.

(From the Complete Grazier.)

OF THE MANAGEMENT OF MILK AND CREAM, AND THE MAKING AND PRESERVATION OF BUTTER.

The quality of cows' milk greatly depends on the nature of their food, which likewise materially affects the quantity they will yield; though this last circumstance is, in some measure, regulated by the manner of milking them. It will, therefore, be necessary to be very cautious in choosing milkers; because, if a cow be roughly handled, it is not only painful to her, but will also cause her to withhold her milk, which is often attended with serious consequences; whereas, if it be gently drawn, she will yield it freely: and it is of importance that it be drawn to the last drop, for it will otherwise decrease at each succeeding meal. As it sometimes happens that cows are *ticklish*, they should, on such occasions, by no means be harshly or severely treated; and if the udder be hard and painful, it ought to be fomented tenderly with luke-warm water, and stroked gently, by which simple expedient she will be brought into good temper, and yield her milk with pleasure and freedom. It is also proper to feed the cows at the time of milking, for, while eating, they give out their milk with greater freedom, and they are prevented, by the motion of their jaws, from the common, and very pernicious trick of withholding their milk; by which means, if not promptly prevented, they will soon become dry.

In this country, it is the general practice to milk cows twice in the course of twenty-four hours, throughout the year; but, in summer, the proper periods are at least three every day, and at intervals as nearly equidistant as possible, viz: in the morning, at noon, and a little before the approach of night. For it is a fact, confirmed by the experience of those who have tried it, that cows, when milked thrice in the day, will yield more milk in point of quantity, and of as good, if not better, quality, than they will under the common mode of milking only on the morning and evening.

After the milk is drawn from the cow, it should be carefully strained through a gauze or linen cloth, stretched on an open-bottomed wooden bowl, or a hair-sieve, or through a sieve made of silver wire, on account of its superior wholesomeness, into the cream-dishes, which should never exceed three inches in depth, though they may be made so wide as to contain any quantity required, and which ought to be perfectly clean, sweet, and cool. If any ill flavour is apprehended from the cows having eaten turnips, &c. the addition of one eighth part of boiling water to the milk, before it is poured into the dishes, will effectually remove it; and, when filled, the dishes ought to be set upon shelves, or dressers, there to continue till the cream is removed.* This should be steadily done by means of a skimming dish, (if possible without spilling any upon the floor, because it will speedily taint the air of the room,) and the cream poured into a vessel, till enough be obtained for churning. When the cream has been collected, it should be put into a deep covered vessel; for the action of the air on the surface dries it; and it should be well stirred with a stick or spoon, once or twice a day, until made into butter; the time of keeping depending on the weather.

With regard to the process of making butter, we would observe:

I. The milk first drawn from a cow is always thinner, and inferior in quality to that afterwards obtained; and this richness increases progressively to the very last drop that can be drawn from the udder.

II. The portion of cream rising first to the surface, is richer in point of quality, and greater in quantity, than that which rises in the second equal space of time, and so of the rest, the cream continually decreasing, and growing worse than the preceding.

III. Thick milk produces a smaller proportion of cream than that which is thinner, though the cream of the former is of a richer quality. If thick milk, therefore, be diluted with water, it will afford more cream than it would have yielded in its pure state, though its quality will at the same time be inferior.

IV. Milk carried about in pails, or other vessels, agitated and partly cooled before it be poured into the milk-pans, never throws up such good and plentiful cream as if it had been put into proper vessels immediately after it came from the cow.

From these fundamental facts, many very important corollaries, serving to direct the practice, may be deduced, among which we can only notice the following:

I. It is evidently of much importance, that the cows should be always milked as near the dairy as possible, to prevent the necessity of carrying and cooling the milk before it be put into the dishes; and as cows are much hurt by far driving, it must be a great advantage in a dairy farm to have the principal grass fields as near the dairy or homestead as possible. In this point of view, also, the practice of feeding cows in the house, rather than turning them out to pasture in the field, must appear to be obviously beneficial.

II. The practice of putting the milk of all the cows of a large dairy into one vessel, as it is milked, there to remain till the whole milking be finished, before any part is put into the milk-pans, seems to be highly injudicious, not only on account of the loss sustained by the agitation and cooling, but also, and more especially, because it prevents the owner of the dairy from distinguishing the good from the bad cow's milk, so as to enlighten his judgment respecting the profit that he may derive from each. Without this precaution, he may have the whole of his dairy-produce greatly debased by the milk of one bad cow, for years together, without being able to discover it. A better practice, therefore, would be, to have the milk drawn from each cow separately, put into the creaming-pans as soon as milked, without being ever mixed with any other; and if these pans were all made of such a size as to be able to contain the whole of one cow's milk, each in a separate pan, the careful *dai** would thus be able to remark, without any trouble the quantity of milk afforded by each cow every day, as well as the peculiar qualities of the cow's milk. And if the same cow's milk were always to be placed on the same part of the shelf, having the cow's name written beneath, there never could be the smallest difficulty in ascertaining which of the cows it would be the owner's interest to dispose of, and which he ought to keep and breed from.

A smaller quantity of clear water, cold in summer, and warm in winter, put into the bottom of the milk pan, is said to assist the rising of the cream.

III. If it be intended to make butter of a *very fine quality*, it will be advisable, not only to reject entirely the milk of all those cows which yield cream of a bad quality, but also, in every case, to keep the milk that is first drawn from the cow, at each milking entirely separate from that which is got last, as it is obvious, if this be not done, the quality of the butter must be greatly debased, without much augmenting its quantity. It is also obvious, that the quality of the butter will be improved in proportion to the smallness of the quantity of the last drawn milk which is used, as it increases in richness to the very last drop that can be drawn from the udder at that time; so that those who wish to be singularly nice, will do well to keep for their best butter a *very small* proportion only of the last drawn milk.

It is a matter of some importance, to determine in what way the inferior milk, which is thus set apart when *fine butter* is wanted can be employed in the greatest profit. In the Highlands of Scotland, the people have adopted a practice, merely from considerations of convenience and economy, without thinking of the improvement of the butter, which answers many good purposes. As the rearing of calves is there a principal object with the farmer, every cow is allowed to suckle her calf with a portion of her milk, the remainder only being employed for the purposes of the dairy. To give the calf the proportion allotted to it regularly, it is separated from the cow, and put into a small enclusure made for the express purpose, on every farm, of confining all the calves belonging to that farm. At regular times the cows are brought to the door of this inclosure, where the young ones fail not to meet them. Each calf is then separately led out, and runs directly to its mother where it is allowed to suck till the dairy maid judges that it has had enough; it is then separated, the legs of the mother having been previously shackled, by a very simple contrivance, to oblige her to stand still, and the dairy maid milks off what was left by the calf. They proceed in this manner till the whole of the cows are milked, and thus do they obtain a small quantity of milk, it is true, but that of an exceedingly rich quality; which, in the hands of such as know how to manage it, is manufactured into the richest marrowy butter that can be any where met with. This richness of the Highland butter has been long remarked, and has been universally ascribed to the old grass that the cows feed upon in those remote glens; but it is in fact chiefly to be attributed to the practice here described, which has long prevailed in those districts

Other uses might be found for the milk of inferior quality: it might be converted into butter of a secondary value; or might be sold daily, where the situation of the farm is within reach of a town; or it might be converted into cheese, which, if made with care and skill, from the sweet milk alone, would be sufficiently good for common consumption.

(To be concluded next week.)

(From the New England Farmer.)

SWINE

Should not be kept in close and filthy pens. Although they are supposed to be naturally filthy animals, they thrive better and enjoy better health when allowed clean and airy lodgings. The late Judge Peters, of Pennsylvania, in an article entitled "*Notices for a Young Farmer,*" &c., observed that, "there is no greater mistake than that of *gorging* swine, when first penned for fattening. They should, on the contrary, be moderately and frequently fed, so that they be kept full, but do not loathe or reject their food; and in the end contract fevers and dangerous maladies, originating in a hot and corrupted mass of blood. In airy and roomy, yet moderately warm pens, paved or boarded, and often cleansed, they are healthy and thriving. They show a disposition to be cleanly, however otherwise it is supposed, and always leave their excrementitious matter in a part of the pen different from that in which they lie down. No animal will thrive unless it be kept clean."

The same writer asserts that fatting hogs should always be supplied with dry rotten wood, which should be kept in their pen, for the animals to eat as their appetites or instincts may direct. It has been supposed, likewise, that swine thrive better when they can obtain fresh earth, which they are often observed to swallow with greediness. Charcoal, it is said by some, will answer as good if not a more valuable purpose; and that if swine can obtain charcoal, they will not only greedily devour a portion of that substance, but will be but little inclined to rooting, and remain much more quiet in their pens than under ordinary treatment.

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* Mr. Young has recommended the dairy-men to boil two ounces of nitre in one quart of water, and to bottle the mixture; of which, when cold, a large tea-cup full is to be added to ten or twelve quarts of milk as soon as it comes from the cow: the quantity of saltpetre is to be increased as the turnips become stronger. The feeding of cows with the *roots alone* will, as the Earl of Egremont found, prevent the milk from having a bad taste. Another method of removing any ill flavour, arising from the cows having eaten turnips, consists in warming the cream, and afterwards pouring it into a vessel of cold water; from which the cream is to be skimmed as it rises to the surface, and thus the unpleasant taste will be left behind in the water.

* A provincial word, denoting the person who has the chief concern in a dairy.

The modes in which swine are fattened in some of the western parts of the state of New York, are stated to be these. "About the first of September, begin with boiled potatoes and pumpkins, mashed together with a little Indian meal, ground oats and peas, or other grain, stirred into the mixture after it cools. From two to four weeks before killing time, the food should be dry Indian corn and clean cold water. Mr. Yonghans fattens his hogs in a large yard or field, with a shelter in it to which they may retire to sleep. But Elder Turner says, hogs should never know what liberty is; but should be kept close all their lives, and as inactive as possible. That with this method double the quantity of pork can be produced with the same expense of food."*

Rubbing and currying the hides of hogs while fattening, is said to be of great advantage to them. It is not only very gratifying to the animals, but conducive to their health. It will be well, likewise, in every stye to place a strong post for them to rub against. During the time of their fattening they should have plenty of litter, which will be a double advantage, providing for their comfort, and increasing the quantity of manure.

There is a great advantage in boiling, steaming, or baking, all sorts of food given to swine. The last American edition of the Domestic Encyclopædia, informs that a "Mr. Timothy Kirk, of Yorktown, Penn. fed one pig with boiled potatoes and Indian corn, and another with the same articles unboiled. The two animals were weighed every week, and the difference between them was as six to nine. The experiment was continued several weeks, and the animals alternately fed on boiled and unboiled food, with a uniformity of result, which sufficiently showed the very great profit arising from boiled food."

Steaming will answer as good a purpose as boiling, and with a proper apparatus is more easily and cheaply effected.

Carrots, according to Arthur Young, are better food for swine than potatoes, and some other writers assure us that parsnips are better than either for feeding them. An English writer says, "they fatten all their pork in the island of Jersey, with parsnips. They are more saccharine than carrots, and it is well known that nothing fattens hogs faster, or makes finer pork than the sugar cane." Mr. Young also asserts that "the most profitable method of converting corn of any kind into food for swine, is to grind it into meal, and mix this with water in cisterns, in the proportions of five bushels of meal to one hundred gallons of water, stirring it well several times a day, for three weeks, in cold weather, or a fortnight in a warmer season, by which time it will have fermented well and become acid, till which it is not ready to give. The mixture should always be stirred immediately before feeding, and two or three cisterns should be kept fermenting in succession, that no necessity may occur of giving it not duly prepared. The late Judge Peters, also asserted that "sour food is most grateful and alimentary to swine. One gallon of sour wash goes farther than two of sweet." Some sentiments, however, which are at least apparently in opposition to the opinion of the above celebrated agriculturists have been advanced by other writers. An English work, entitled "Farmer's Calendar," (author's name not given) declares that much has been said, and little understood about *purposely* souring food for hogs. It is not that acidity can possibly tend to making fat, but it is found that pigs will readily fatten upon soil or rather acescent food, a sweetish taste and glutinous quality succeeding fermentation; and that they will do so still more readily upon such as never reached the acid state, I know, and have seen in hundreds of instances." In order to reconcile these writers it will only be necessary to advert to the different stages of ordinary fermentation, and the products of each stage. The first stage of fermentation produces sugar, and is called the saccharine fermentation. The second stage developes alcohol, (spirit of wine) and is called the vinous fermentation. The third produces vinegar, and is called the acid fermentation; and the fourth and last stage converts the matter fermenting into a substance, which is not only offensive, but poisonous, and is called the putrid fermentation. Thus if you soak wheat or other farinaceous substance in water, of a proper temperature, it will first become sweet, and begin to sprout or vegetate; it will next afford spirit or alcohol; continue the process the wash turns sour, at first slightly, and then more strongly acid; and at last the whole becomes putrid. It probably contains most nourishment when it is sweetest, but is valuable till very sour, when it is worth little or nothing; and when the putrid fermentation has commenced it is worso than nothing, as food for any animals. The wash, then, should be given to the hogs while it is yet sweet, or but beginning to be sour.

(From the New England Farmer.)

Hints with Regard to Fattening Swine.

If your object is merely profit in fattening your hogs, you must take time for the process, and make them thoroughly fat A farmer, stating the result of some experiments in the Bath Society papers, vol. vi. p. 382, says, "I invariably found that quantities of food consumed by fatting hogs increased every week till the animals became three parts fat; after this period they ate but little; and almost all they ate turned to fat: and that can only be done by giving time."

The experienced farmer need not be told that fatting hogs should have now and then a dose of brimstone or antimony given with their food, in order to preserve their health and increase their appetite. But there may be some, who never knew, or have forgotten that rotten wood, thrown to them occasionally, will be eagerly devoured, and serve as an absorber of those acrid juices, which might otherwise occasion a disorder. It is likewise said that to throw them now and then a few pieces of charcoal will answer the same purpose.

(From the New England Farmer.)

TO DRY PEACHES.

The following mode of drying peaches is adopted by Thomas Belanjee, of Egg Harbor, New Jersey.

He has a small house with a stove in it, and drawers in the sides of the house, lathed at their bottoms. Each drawer will hold nearly half a bushel of peaches, which should be ripe, and not peeled, but cut in two and laid on the laths with their skins downwards so as to save the juice. On shoving the drawer in they are soon dried by the hot air of the stove, and laid up.—Peaches thus dried eat like raisins. With a paring machine, which may be had for a dollar or two, apples or pears may be pared, and sufficient quantity dried to keep a family in pies, and apple bread and milk, till apples come again. With a paring machine, one person can pare for five or six cutters.

A GOOD DAY'S WORK.

At Shutesbury, on Wednesday, September 29, Mrs. Bogue, on the anniversary of her birth-day, at the completion of her *ninety-fifth year*, spun *fifty-four* knots of woollen yarn, of a superior quality. Such women were our mothers! How many of the younger portion of their descendants at the present day can equal this performance?—*Worcester Spy.*

MISCELLANEOUS.

ORIGIN OF A TOWN.

In case of country towns, where a Highland laird or speculating society has not interfered, it is matter of analysis, for the fashionable science of political economy, to discover how one of them has grown, or by what cement it is united. There is a church; that is the ordinary foundation. When there is a church, there must be a parson, a clerk, the sexton, the midwife. Thus we account for four houses. An Inn is required on the road.—This produces a smith, a saddler, a butcher and a brewer; they require a baker, a tailor, a shoemaker, and a carpenter. They soon learn to eat plum puddings, and a grocer follows. The grocer's wife, and the parson's wife contend for superiority for dress, and from this cause flows a milliner and mantuamaker. A barber is introduced to curl the parson's wig, and to shave the smith on Saturday nights; and a stationer to furnish the ladies with paper for their sentimental correspondences; an exciseman is sent to gauge the casks, and a schoolmaster discovers that the ladies cannot spell. A hatter, a hosier, a linen draper, follow by degrees; and as children come into the world, they begin to cry out for rattles and gingerbread. The parson becomes idle, and gouty, and gets a curate, and the curate gets a wife, and twenty children; and thus it becomes necessary to have more shoemakers, tailors, and grocers. Alas! too happy people: for in the meantime a neighbouring apothecary, hearing with indignation that there is a community living without physick, places three blue bottles in the window—when on a sudden the butcher, the innkeeper, the parson's wife, the grocer's wife, become bilious, and find out they have nerves, and their children get teeth, water in the head, and convulsions. They are bled and blistered, till a physician finds it convenient to settle; the inhabitants become worse and worse every day, and an undertaker is established. The butcher having insulted the tailor over a pot of ale, he to prove his manhood, knocks him down with the goose. Upon this plea, an action of assault is brought before the next session. An attorney sends his clerk over to take depositions and collect evidence; the clerk finding a good opening, sets all the people by the ears, becomes a pettifogging attorney—and peace flies the village for ever. But the village becomes a town, acquires a bank, a mechanic's institute, a circulating library, and a coterie of old maids; and should it have existed in happier days, might have gained a corporation, a mayor, a mace, a quarter sessions of its own, a county assembly, the assizes and the gallows.—*Dr. Macullock.*

EXTRA POLITENESS.

During an excursion on board of a steamboat on the Potomac, and whilst the company were amusing themselves with dancing, a young lady happened to slip and fall on the deck. A dandy, who chanced to be near at the time, stood motionless; and on being asked why he did not assist the lady in getting up, fashionably replied, that he was waiting for an introduction.

The consumption of gin in England during the year 1829 is stated at 24,000,000 gallons. A London editor puts this item before his readers in an impressive shape when he informs them that gin enough had been drunk within the year "to form a river, a yard deep, twenty yards wide, and five miles in length." Were a similar exposition made of the quantity of spirituous liquors annually consumed in this country, it would possibly as much exceed in size this river of gin as our rivers of water do those of England.

He who has a mouth of his own, should never bid another man blow.

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* Memoirs of the New York Board of Agriculture, vol. ii. pp. 39, 40.

THE FARMER.

Baltimore, Friday, Oct. 22, 1830.

We publish below an account of the sale of thorough bred stock belonging to Charles H. Hall, Esq. of New York. It will be perceived, that the prices at which the cattle sold fall considerably short of those obtained at Mr. Powel's sale; yet they are sufficiently high to evince the high estimation in which thorough bred horses, improved Durham Short Horn cattle, and new Dishley or Bakewell sheep continue to be held. Nor do we consider the apparent depreciation in price of the Short Horns, at all indicative of a depreciated estimate of their value. The truth is, that at the high prices at which they have been held, few farmers could afford to purchase, and hence they have been confined to very few hands. The price asked for a first rate bull of this breed would pay for a very good farm in any part of the interior of the Union, and therefore they are excluded from the pastures of all except a few of the most wealthy. The generality of our farmers possess capitals too limited to authorize so heavy an investment in a single object of attention. Let this or any other equally excellent breed of cattle be offered at any thing like a price within the means of our farmers, and they will not be backward in introducing it upon their farms; and until this be the case, we fear that any considerable improvement in the breed of cattle from this source cannot be looked for.

But there is another mode of improving the breeds of cattle, sheep, &c. within the means of every farmer; which costs nothing; and which will be nearly as effectual if not quite so, as the introduction of foreign stock. It is the selection of the finest animals for breeders, judicious crossing, and attention to proper management. It is to this that the English are indebted for the stock which is now valued so highly; for it must be recollected that in the production of their improved stock they originally possessed no better materials than we now do. Indeed it may be asserted, that, without this care in selecting breeders, even the imported improved stock would degenerate in a very few years to a level with the most common breed. In the improvement of domestic animals much depends upon their management while young. They should be allowed to run with the mother till such time as they are able to feed freely, and then should be weaned gradually that their constitutions be not injured by the sudden change of food. They should then be kept in good pasture, protected from inclement weather by comfortable housing, and provided plentifully with well cured sound and sweet hay, or other provender, during the season of suspended vegetation. When the animals are fully grown, and all their points developed, then make a selection of breeders, and not before. A fine calf may make a very ordinary cow, or a worthless bull; and it is not possible to predict what the animal will be before a full development of its character takes place at full size. Besides, there is nothing so detrimental to animals as premature breeding—their growth and even development of points are suspended to supply demands as unnatural as they are unwisely permitted. The practice of indiscriminately setting aside the calves of deep milkers for milch cows, is also too prevalent. There is not a more faithful saying than that "a good cow may have a bad calf." Wait till the animal be fully grown before you decide upon it for the dairy, or condemn it to the shambles; and then if you would make a dairy cow of it, bestow great care upon it; feed it well but not to fattening it for a month or two previous to calving, and afterwards let her be properly and thoroughly milked. If you raise the calf, confine it from the cow, admitting it to suck twice a day, and always milk the cow "dry" after the calf leaves her. It is a bad practice, and will ruin any cow to give the calf two teats, and you milk the other two—let it have all, and take all it wants of the milk, and you take the rest, and then you will be sure that the cow is well milked—on which depends her character in a great measure of a good milker. It is believed that if a proper system of management were adopted with all cows with their first calves, we should have very few poor milkers. But we have dwelt much longer upon this subject, and been much more desultory in our remarks, than we had intended.

The sale of Mr. Powel's and Mr. Hall's stock is calculated we think to do much good, as the cattle will be dispersed over the country, and the advantages arising from crossing will thereby be extensively diffused. On this account we are always glad to hear of such sales.

Great Sale.—The sale of "thorough bred horses, Durham short horned cattle, and improved Bakewell, or New Leicester English sheep," took place on Monday last, at the farm of Charles H. Hall, Esq. at Harlem, and was well attended. The auctioneer was Mr. Minturn. The following are the sums at which the animals were sold.

The noted running mare Lady Lightfoot, in foal by American Eclipse, $1475. Alarm, a brown imported mare, by Thunderbolt, dam Tadora. in foal by Barefoot, $650. Gazelle, by Bussorah, dam Hyacinth, 6 years old, in foal by Barefoot, $380. Knot, a sorrel, 6 years old, by Bellfounder, out of Cinnamon, $110. Lady Mary, 10 years old, by Bussorah, out of Maria, $425. A brown colt, 6 months old, by American Eclipse, out of Lady Lightfoot, $850. Lightning, one year old, a brown filly, by American Eclipse, out of Alarm, $400. A brown filly 6 months old, by Eclipse Lightfoot, out of Alarm, $200. Ranger, 2 years old, a dark bay, by Bussorah, out of Alarm, $500. A sorrel filly, by Eclipse Lightfoot, out of Knot, $60.—Constellation, 5 years old, dark sorrel, by American Eclipse, out of Olivia. $675. Bald Eagle, 5 years old, by American Eclipse, out of Lightfoot, $500.

Durham Cattle.—Regent, an imported bull, 8 years old, by Regent, out of Favorite, $300. Patroon, 3 years old, by Champion, out of Flora, $200. Blanche, a white cow, a great milker, sent from England by Admiral Coffin, $90. Flora, an imported cow, and thorough bred, $150. Prince, 4 years old, got in England, by Fitz Favorite, out of Princess, $210. Snow Drop, by Favorite, out of Blanche, $170. Lily, 4 years old, by Regent, out of Blanche, $250. Young Lily, 1 year old, by Albion, out of Flora, $100.—Young Snow Drop, by Regent, out of Snow Drop, $250. Young Princess, 1 year old, $90. Leopardess, 1 year old, by Regent, $45. Gardiner, 1 year old, by Young Regent, $90. Magnolia, 2 years old, by Regent, out of Blanche, $150. A heifer calf, by Young Regent, out of Magnolia, $90. A bull calf by Regent, out of Blanche, $50. A red heifer calf, by Patroon, out of a cow by Comet, $45. A white bull calf by Young Regent, out of Young Snow Drop, $75. A bull calf, by the same, $74. Two do. by Patroon, $75. One do. $25. One do. $20. A red cow, by Comet, $50. Young Susan, 2 years old, by Regent, $130. A heifer, 1 year old, by Regent and Susan, $140. A yearling heifer, by Regent, $45. A do. by do. $40.

New Leicester or improved Bakewell Sheep.—An imported Ram, of large size and fine form, $95. An imported Ewe, remarkably fine, $90. A Ram, the produce of the preceding, $95. Twenty-seven yearlings and lambs, of the present year and of the above blood, from $14 to $25 each.

All the animals were in good health and warranted as stated, pure in blood.

Total amount of sales, about $11,000.

The sale was attended by a large body of persons of the first respectability, from all parts of the country. [*N. Y. Gaz.*

Nigo Recio, and Early Yellow Wheat.

Mr. Smith: *Cambridge Maryland, Oct.* 9, 1830.

A sample of wheat called "Nigo Recio," or "Hard Wheat," a native of Malaga, was kindly sent me in February last, by the Honourable A. Stevenson:—my anxiety to know something of its character, induced me to seed a few grains, about a dozen, on the 30th of March; having forwarded the vegetation by a short immersion in dilute chlorine; the result was about a wine glass full of wheat; though very inferior to the seed, yet possessing, on trial, the capacity of vigorous vegetation.

The apparent objections to this wheat are its most unusual length of beard, and its very short head: though the latter may be ascribed to the unnatural seed-time. The balance of the sample sent me is large enough for a very satisfactory experiment, which I shall make the approaching season; the character "it comes with," of resisting the injuries which wheat in general is liable to, in field and granary, makes it worthy of a fair and full investigation.

A communication from a gentleman in Virginia, signed "Fairfax," (vide "American Farmer," June 8, 1829,) describes a fine wheat he had been growing a few years, which he calls the "Early Yellow," ripening about the 8th of June, with sufficient strength and height, &c.; indeed, I received a letter from him, the author, on the subject, and was so highly gratified with his history of it, and his polite offer to to send me a few bushels if I desired to make the experiment, that I immediately expressed, and continued my letters of anxious desire for it; yet, as the fates will sometimes work, he did not *receive* any reply from me, till the spring; I have *renewed* my application by three letters for the wheat, for the present season, and am as yet unfortunately disappointed, but hope it will arrive in time.

I have dwelt on this subject, that others more successful than myself, may obtain a specimen at least for trial. I consider the promise of this wheat, "from the notices I have received of it," more flattering than the "Nigo Recio," or any other that I have heard of. J. E. M.

The Crop of Corn in Talbot.

Since the year 1816 the crop of Corn has never been known to be so short as in the present season. Where the fields look pretty well, and these are few in number, there is found great deficiency, both in size of ears, and in filling—so many half-naked cobs were never before gathered. A great many fields that have hitherto produced, good saving crops, are this year almost barren. The prospect is truly a sad one. So far as the gathering has gone, moderate as have been the calculations of product, we hear of no piece of ground that has come up even to the reduced estimate. It becomes the farmers to be very economical, the year coming, in the use of Corn.

[*Easton Gazette.*

Latest Foreign News.

Intelligence from London has been received at New York to the 7th September. The Russian government had not recognised the new government of France, but had interdicted all intercourse between the two governments. The disturbances in the Netherlands had not been quieted; but nothing further had occurred at Brussels—negotiations were in progress between the government and people for an adjustment of the difficulties. A revolutionary movement was expected to take place in Spain early in October. Spanish refugees were assembling at Perpignan, where they were procuring clothing and munitions.

Liverpool Markets, *Sept.* 8, 1830.

We experienced a languid demand for Cotton last week, and the sales of all descriptions, (including those at public auction 3d inst.) only reached 10,230 bales, including 90 Sea Island at 13½ a 17d; 20 stained, 8; 3000 Upland, 6½ a 7½; 1900 Alabama, 6 5-8 a 8; 1680 Orleans, 6¾ a 8. At public auction, 1080 Sea Island at 11½ a 17½; 450 stained, at 6½ a 10½. The article was offered freely throughout the week, and we have to notice a decline of 1-8d per lb. from the previous highest point of the market, for all descriptions of American. The public sale of Sea Islands was thinly attended, and resulted, as was generally expected, in lower prices; for what was then sold, a reduction of ½d per lb. upon the inferior, up to 1d per lb. on the better sorts, was accepted; even with this concession, not one half of what was offered, found buyers; the import of the week was 12,700 bales. The accounts from the manufacturing districts are encouraging, and the consumption of cotton is undiminished.

There is no change in the market for three days past, and the sales about 5500 bales; speculators have taken 2000 bales, being induced by the decline noticed above.

Average of Wheat—For week, 70s 5; 6 do 72s 11; duty, 2s 8d.—On Flour, 1s 7½ per brl.

London Corn Exchange, *Sept.* 6.

The arrivals of foreign Wheat and Oats last week were good, and there was a better supply than of late of English Wheat, but very little of any other kind of Grain. This morning there was a fair quantity of new Wheat fresh up, and not much other Corn. The new Wheat comes chiefly tender, but better in quality than last year, and the best parcels have fully obtained last week's quotations, and there has been more business doing to-day in most kinds of both new and old. The Flour trade continues very dull, notwithstanding the late reduction.

Tobacco.—The demand for export is principally for the south of Europe; but orders are in town for Germany and Holland, and the holders appear disposed to accept lower prices for Virginia. For stemmed and leafy Tobacco a better demand exists for the home trade. The Irish trade is also out of stock, and the demand good, but prices are not higher. The deliveries last month were very small, only 707 hhds. of which 311 were for home trade.

Prices Current in Charleston, Oct. 11.

Cotton, Sea-Island, .21 a 25. Stained .10 a 15. Santee, .20 a 23. Main, .20 a 23. Upland, inferior and common — a —, fair to good, .— a .—, prime to choice, .— a .—. *Rice*, prime, $2.87½ a 3.00, inferior to good, do. $2.50 a .2.75. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $6 a 6½. *Corn* .65 a .68. *Oats* 32 a .35; Peas, 60 a 63. *Hay*, prime Northern, 1. a 1.25.—*Whiskey*, Philadelphia and Baltimore, hhds. .35 a .36; bbls. — a —; New Orleans, old .37½ a —. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .20; Tallow, Carolina, 7 a 7½. *Beef*, Boston, No. 1, .— a 9; Mess, 10½ a 11; New York Mess, .9 a .10, Prime, .6½ a .6¾; Cargo, .5½, nominal. *Pork*, Mess. .14 a 15. Prime, .11½ a .13½. *Bacon*, .6 a .7½ cents; hams, .9 a 11; Lard, 14 a 15. scarce. *Butter*, Goshen, .18 a .—; inferior, 8 a .12½.

HERBEMONT'S MADEIRA.

This grape should make part of every collection, whether designed for wine or for the table. It does not suffer from *frost* nor *drought*, is very vigorous, and an abundant bearer. Some vines which bore in this City, the present season, had many visiters, and were generally very much admired. Its character as a wine-grape is well known to the public. Mr. Herbemont will dispose of vines and cuttings of this Grape, and cuttings of the Lemon,* a hardy and excellent wine-grape, delivered here at the following rates, viz:

For vines by the 1000—10 cents each;—500—12½;—100—15;—50—18¾. Cuttings per 1000—25 dollars; 500--$15; 100—$4; 50—$2½.

Orders left with the subscriber before the 15th November will be forwarded; and any information on the subject will be communicated with pleasure.

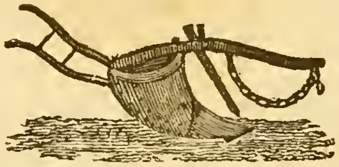
G. FITZHUGH, Jr.

* These cuttings take very readily.

FRUIT TREES, &c.

As the season for planting has nearly arrived, we hereby inform our friends, and the public generally, that we have now ready for sale the following fruit trees, &c. which we warrant true according to catalogue, viz. Apple, Peach, Pear, Cherry, Apricot, Nectarine, Plum, Grape, Strawberry, Raspberry, Currant, Gooseberry, Fig, Thorn Quicks and Honey Locust for hedges, several thousand White Mulberry trees of fine vigorous growth and of good size for planting in orchard form, at eight dollars per hundred; also Horse Radish, Asparagus and Hop roots, and ornamental Shrubbery. All persons interested in so useful an establishment are invited to call at the Nursery, three miles east of the city, near the Belair road, where orders will be received, and carefully put up, according to direction, to carry to any part of the United States; orders also may be left at our store, Pratt street wharf; Baltimore, or at Dr. John Little's, Georgetown, D. C.

Catalogues may be had at the store gratis.



AGRICULTURAL IMPLEMENTS, of the latest improvement and most approved kinds, constantly on hand at our manufactory and repository, Pratt street wharf, the assortment of ploughs as will suit the various purposes of the farmer, and the different kinds of land for which they may be wanted; among them may be enumerated:—

The SELF-SHARPENING PLOUGH, of sizes from the seed plough to heavy three-horse ploughs.—McCORMICK'S IMPROVED PLOUGHS, with wrought and cast shares of the same model; which was represented in the last American Farmer.

WOOD'S PATENT CAST SHARE PLOUGH, BAR-SHARE PLOUGHS, also Sinclair & Moore's NEW IMPROVED PLOUGH, with wrought and cast shares of sizes for flushing and seeding, the six and seven inch sizes will be found particularly well adapted to seeding; particular attention has been paid to the quality of the castings, in order to give strength and durability.

WHEAT FANS of the most approved kind, STRAW CUTTERS of different kinds from five to fifty dollars. The large Self-Feeding Cylindrical Straw Cutter is made after the manner of the English box, with improvements, and will be found a very superior machine for the purpose.

Also Corn Shellers, Hay and Manure Forks, Cast Steel Axes, Hoes, Spades, Shovels, Garden Tools, and Garden Seeds, of a great variety of kinds, wholesale and retail; Clover, Orchard Grass, Herds, Timothy, Tall Meadow Oat Grass, and Lucerne Seeds, &c. &c.

October 15. SINCLAIR & MOORE.

PATENT STRAW CUTTERS AND PLOUGHS.

The Subscriber has on hand, a good supply of his Patent Cylindrical Straw Cutters, which are adapted to the cutting of all kinds of long forage, straight or tangled, and for their simplicity, durability and efficiency, he believes they have never been surpassed, he has sold between three and four hundred of them, and he believes they have given universal satisfaction.

He also keeps himself constantly supplied with Gideon Davis's highly improved Ploughs, in all their variety; and the castings to supply the place of those worn out, together with other implements of husbandry, as heretofore.

He is also agent for the Messrs. Robbins's improved *Corn Planter* for planting or sowing all kinds of seeds; can furnish the machines or dispose of the patent right.

Likewise on hand, Herds and Orchard grass Seeds, and a general assortment of the Messrs. Landreth's Garden seeds.

Orders received for Fruit and Ornamental Trees, Bulbous roots, Flowers, &c. &c.

JONATHAN S. EASTMAN,
West Pratt-street, between Hanover & Charles.

IMPROVED DURHAM SHORT HORN CATTLE.

For the purpose of reducing my stock of Short Horns, which at present consists of one hundred head, and of disseminating the breed, I will offer for sale at my farm near the Philadelphia turnpike, ten miles east of Lancaster, on Friday the 12th of November, at 10 o'clock, a number of Cows, Heifers, and Bull Calves. The above cattle are derived from Mr. Powel's stock, and will be sold for such prices as will enable purchasers to find their account in breeding from them, for the purposes of the dairy and shambles. Some of the Cows have yielded forty quarts of milk per day for many weeks after calving; and to prove the superiority of the breed for the shambles, a few fat Steers will be offered for sale.

I will also offer for sale a Cleveland Stud, six years old, sired by Exile. HENRY A. CARPENTER.

Carpenter Hall, Lancaster Co., Pennsylvania.

JENNY WANTED.

Any person having for sale a large well made, barrel bellied Jenny, not over 7 or 8 years old, may hear of a purchaser by applying to the subscriber, at the office of the American Farmer. Letters by mail must be free of postage. GIDEON B. SMITH.

PRINCE'S TREATISE ON THE VINE,

Is just received—for sale by Gideon B. Smith, at the office of the American Farmer, price $1.50.

BALTIMORE PRICES CURRENT.

Baltimore Market.—We have scarcely any change to notice in our market, except a slight decline in flour. Howard street was dull yesterday at $4.75 from wagons, and a further decline expected. In wheat there is no change; corn has advanced from one to two cents. Beef on the hoof continues the same as last week.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 332 hhds. Maryland Tobacco.

Flour—best white wheat family, $6.00 *a* 6.50—super. Howard-street 4.81 *a* 4.87——city mills, 4.62½ *a* 4.75—Susquehanna, ——; Corn Meal, bbl. 2.25—Grain; red wheat, .90 a .93;——white do. 95 *a* 1.00—common red ——Corn, white, .56 *a* .57—yellow .57 *a* .58--Rye, .52 *a* .53———Oats, .26 *a* 27½ Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 5.50 *a*——Timothy, 2.00 *a* 2½.——Orchard Grass, 1.25 *a* 1.50——Herd's, — *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½ Flaxseed 95 *a* 1.00-Cotton, Va. 9½ *a* 10½-Lou. 11½ *a* 13½ —Alab. 9½ *a* .11—Tenn..9½ *a* .10—N. Car. .8½ *a* .10½—Upland 10 *a* 13-Whiskey, hhds. 1st p. .31 *a* —; in bbls 31 *a* 32——Wool, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .23 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*. ——Mackerel, No. 1, 6.50, *a* ——No. 2, 5.87½ *a* 6.00—-No. 3. 3.75 *a* ——Bacon, hams, Balt. cured 10c.——Feathers, 35 *a* 36---Plaster Paris, cargo price per ton, 4 25 *a* —ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.00 *a* 4.50—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—Hickory, $4.50.

EDITED BY GIDEON B. SMITH.

Published every Friday, (at the old office, basement of Barnum's City hotel,) by I. IRVINE HITCHCOCK & CO. *at Five Dollars per annum, payable in advance.*

Printed by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the Western Tiller.)

From the Western Agriculturist, a work which is now in press and will shortly be published, by Robinson & Fairbank, of Cincinnati, Ohio.

FENCES.

We proceed now to treat of one of the most interesting and important subjects particularly in this western country, connected with the tillage of the earth, to wit: the construction of *fences* to protect the crops of the farmer from the depredations of his own stock from within, and that of his neighbors from without. There is no part of the labors of the agriculturist more expensive or perplexing than that of keeping up his fences. It acts as a constant and ruinous drain upon his purse, as well as a ceaseless annoyance to the serenity of his mind. One of the most scientific farmers of this county thus writes to us upon this subject, and we doubt not that he expresses the prevailing sentiment of the agricultural community.

"Without the fear of contradiction from our experienced farmers, I pronounce this to be the leak which prevents the filling up of our cup of bliss; as things are managed in the western country, it is worse than a leak, it is a sore, a blotch, the source of perpetual discontent—the 'fretting leprosy' of the land. Tell us how this is to be cured, and your book shall be immortal—'*Semper honos, nomenque tuum laudesque manebent.*' I have said in the *western country*, for in no other part of the world has the farmer so much labor to undergo in order to secure his crops. The mode of enclosing, as here practised, and the urgent necessity there is for the strongest fortifications, in consequence of the barbarous practice of suffering stock of all kinds to run at large, keeps the farmer poor and grovelling and ignorant:—creates the cause of more rustic quarrels than any other thing, whiskey not excepted. I had rather live in southern Africa and see my crops eat up and trampled down by the countless droves of Antelopes which occasionally overrun that country, or even guard my *field of cucumbers* from the foxes and jackalls of Syria, than be a farmer in Western America, to endure the misery of our present system of enclosure, provided there was no hope of relief."

We wish it were possible to gain *immortality* for our book on the condition pointed out by our correspondent. But of this we despair. Availing ourselves of his useful suggestions upon the subject, we may, perhaps, offer some views, and lay down a few instructions, that will have a tendency to lessen, if not eradicate this "fretting leprosy" of the land.

In the first place, let a law be passed, with severe penalties, against the running at large of stock of every description. Why this matter has not long since been regulated by legislative enactment, is a matter of surprise. A more ruinous practice to the peace of the farmer and the safety of his crops, could not be devised, than that of turning into the highways and unenclosed woodlands, troops of unruly horses and cattle, and droves of half starved hogs, against whose unlawful assaults no ordinary barriers are proof. Until this is done, it is in vain to look for exemption from this crying evil. A better system of fencing than that which at present prevails, may, in some degree lessen the evil, but so long as hogs, cattle and horses, are turned into the woods and roads to seek a scanty and precarious subsistence, the farmer may look in vain for security to his crops, or quietude among his neighbors.—His worm, and post-and-rail fences may be annually renewed—his hedges of thorn and honey locust carefully planted and trimmed, but all to little purpose; nothing short of a stone wall, both high and thick, will resist the encroachments of a troop of half famished, full grown hogs, turned out to "root or die." No time should be lost in bringing this matter before the legislature. It is a proper subject for statutory provision, and the evil complained of, can only be remedied in that way. The press, and the agricultural societies of the state, should take up the subject; petitions from the farmers of each county should be circulated and forwarded to the legislature, and their representatives instructed to procure the passage of a law inflicting the heaviest penalties upon all persons who suffer their stock to run at large. Until steps of this kind are taken, the farmer's cup of bliss will never be filled.

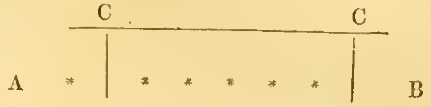
We are not to be understood as saying, that a law, prohibiting the running at large of stock, would do away with the necessity of good fences; on the contrary, they are indispensable to protect the crops of the farmer from his own animals. That there is throughout the western country very great mismanagement in regard to this branch of husbandry, is most obvious. If dead fences of timber are used, they are but too often imperfectly constructed of bad materials; if stone walls are built they soon fall down, and if hedges are occasionally adopted, they are generally so much neglected that they are neither ornamental nor impenetrable.

There are several different kinds of enclosures;—the hedge, the ditch, the wall, and the paling, worm, or post-and-rail fence. Ditches are sometimes used for a fence, and are then made deep and wide, and the earth removed from them, thrown up into a bank on the side, the height of which, added to the depth of the ditch, constitutes a very tolerable barrier. Ditches vary in their form; those with sloping sides are the best and cheapest. The slope should be considerable, so as to make the ditch about three times as wide at the top as it is at the bottom. The prevailing fences of the west are the "worm" and "post-and-rail," both of which are temporary barriers, expensive in construction and requiring continual repairs. The progressive diminution of the timber used in the construction of these fences, to say nothing of their insecurity, and their annual calls upon the time and labors of the husbandman, will cause them at no distant day, to be wholly abandoned. The earlier a substitute is found for them the better, for as has been properly remarked, of "whatever wood they are made, however substantially they may be executed, or in whatever situation they may be placed, their decay commences the instant they are erected."

Of the relative value of the different kinds of timber used in the formation of fences, nothing need be said: sad experience in the frequent renewal of his fences has long since imparted this knowledge to the farmer of the west. The practice of burning or charing those parts of the posts, used in making fences, which are sunk in the ground, although somewhat extensively practised, is believed to be without any beneficial influence in preserving them from decay. A better mode is that of giving them a coat of boiled oil, or of oil paint, which will exclude both the air and moisture. Another good preventive of decay, is that of immersing the posts, for a time, in hot pyroligneous acid. But before they are subjected to these processes, the post should be well seasoned; for if the wood be green or have been exposed to moisture, previous to their being dipt in these preparations, the coating will not adhere with that tenacity which will exclude from the pores of the wood, the wet and dampness of the ground.

Wall fences are formed of various kind of materials, such as earth, stone, brick, &c. When properly constructed, they are good fences. Those formed of earth are not considered durable, the brick are too expensive except for ornamental work: In cases where the material is found on the grounds that are to be enclosed, a dry stone wall is not only more durable, but taking a series of years, cheaper than either clay or brick. In the construction of walls of this kind, it is important that the stones be of that size, and so broken, as to bind well; and they be well put up, pinned with care, and have a dry and deep foundation, to protect them from the effects of the frost. They should be wide at the bottom, tapering upwards; and securely coped at top with a material so substantial, that it cannot be readily overturned; for on the manner in which the wall is finished, will greatly depend its durability.

In Scotland, wall fences of this kind are built in the following manner. The foundation is dug two and a half feet wide and six inches deep, and filled to the surface of the ground with small stone, broken to nearly the same size.



Stones are then placed on the edge of the foundation that will reach beyond it six or seven inches, and at the same time, cover the foundation of small stones, seven or eight inches; the wall is then started upon the horizontal line A B, on the accompanying diagram, and is well hearted as it ascends. At the height of eighteen inches, a binder is put on, C C, that reaches from one side to the other. These binders are one yard apart, the whole length of the wall: 18 inches higher, another binder is put on, reaching from side to side. These are also one yard apart, but are not placed over the last course of binders, but in the centres between them. The wall, when raised to the proper height, is capped with stones reaching across it, which at the top, should not be less than one foot in thickness.

A fence built in this manner, will in ordinary cases, stand for forty years, without needing repair. Where the stone, necessary for the erection of a fence, lie upon the ground that is to be enclosed, or can be obtained without hauling them more than three or four hundred yards, the cost will be found but little more than that of a "worm fence." Taking a series of ten years, and the advantage is altogether in favor of the stone fence. In the course of forty years, it will be found that four or five renewals of the rail fence have been necessary, and not one of that constructed of stone. It is obvious then, that as between stone and wooden fences, the advantage, under certain circumstances, is wholly in favor of the former. It is safe to say, that at least one month of the annual labor upon the farms in the western country, is expended in making and repairing the worm fences, with which they are enclosed and subdivided. Suppose, for example, two farms, of five hundred acres each, in all respects equal, save that one is fenced with stone, and the other with dead timber, and that each farm employs twelve laborers, at one hundred dollars per annum. The farmer who has fenced his ground with stone, incurs no expense, while he who has used timber, is compelled to make an expenditure of one hundred dollars per annum, being the entire labor of one hand each year. At an annual compound interest, these expenditures would amount, in less than thirty-three years, to ten thousand dollars, the entire price of the farm at twenty dollars per acre.

Of the superior value of stone fences, as compared with wooden ones made of dead timber, there can be no doubt, provided the stone for constructing them can be found contiguous to the ground to be enclosed. When made, they are at once a barrier, and allow the immediate use of the enclosures. They occupy but little space, are more secure than most other fences, admit of being usefully employed in rearing certain kinds of vines and other fruits, and taking but a very short term of years into the calculation, are unquestionably more economical than the prevailing "worm" and post-and-rail fences of the west. How far they should be used to the exclusion of live fences or hedges, remains to be seen in the examination which we are now about to give to this species of fencing.

In *England*, by far the most common kind of fences is the live hedge, and except in certain situations and under certain circumstances, they are found, after long experience and repeated experiments, to combine more advantages than any class of enclosures. Live hedges are made from a great variety of plants. Success in rearing them will be found to depend upon the degree of attention that is bestowed on the following circumstances: First, the plants being suited to the soil and climate; secondly, the preparation of the earth or soil; thirdly, the time and mode of planting; fourthly, the age of the plants; fifthly, the size of them; sixthly, the dressing or pruning the tops or roots before planting; seventh, the weeding and hoeing them while growing; eighthly, trimming and after management; ninthly, filling up the gaps or openings in the hedges; and tenthly, diseases to which hedge plants are liable, and their remedies.

It will be obvious to the mind of every reflecting man, that in the choice of plants for a hedge, the influence of soil and climate should be particularly considered, as upon these, more than any thing else, will depend the success of the effort. Hence the policy, as a general rule, of relying more upon our indigenous plants, than upon those of other countries. Where indigenous plants for hedging cannot be had, it will be necessary to rely upon exotics, and in the selection of these, it will be found important to bring them from points where the climate and soil correspond as nearly as possible with those of the district into which they are to be removed. Indeed, too much attention cannot be bestowed upon this subject. A British writer says, "in respect to this, a careful inquiry seems to be one of those requisites, essential to the success of every plan of enclosure; for though there are, comparatively speaking, few situations, however elevated above the level of the ocean, and scarce any description of soil, where a good live fence may not be reared, with one sort of a plant or another, yet it is an object of the first importance to know the plants best suited to every variety of soil, as by a judicious choice of these, much loss and difficulty is avoided, and good substantial fences are made in a short time, and in many situations, where, from a mistake as to plants employed, the fence has languished for years, and ultimately perished, notwithstanding every care that could be bestowed upon it. In some instances, we have known twenty years experience barely sufficient to undeceive those who had made mistakes of this kind."

The preparation of the ground intended to receive the plants, must be carefully attended to. The ground in which a hedge is to be reared, will be improved by a summer fallow, to destroy the weeds. Dung, lime or compost, according to the nature of the soil, should then be laid on the tract upon which the hedge is to be planted. When the manure is properly incorporated with the soil the plants should be carefully placed in the earth, and it drawn up and trod firmly about their roots.

Some diversity of opinion exists as to the best period for removing the plants from the nursery to the place where they are to stand in the hedge. In England the usual period is from the beginning of November to the end of January, and sometimes in the spring. In this country, where the changes in the winter season from heat to cold, are both frequent and extreme, we think it will be found much the safest plan, to remove the plants very early in the spring, and for this obvious reason, that the frequent freezings and thawings of the winter season, are apt to loosen the ground around their roots, and thus either destroy, or materially retard their growth.

The modes of planting hedges are various. When they are made in the face of a ditch, bank or wall, the practice is to lay the plants horizontally, either upon the surface, or upon a paring of a sod, and afterwards to cover them in such manner as that about eight inches of their length may be under the soil, and about three inches projecting above it. This affords room for the roots to stretch out and form fixtures for the plant, while the part above the ground will be able to produce but two or three shoots, which from the smallness of the number, will be strong and vigorous. In setting a hedge upon the common surface of the ground, a furrow eight or ten inches deep is made with a plough, upon a tract that has been previously manured. To render the furrow as clean as possible, the plough should be drawn twice along it. The plants should then be set in the bottom of the furrow, inclining a few degrees in the direction that the fence is to run. The plants are placed against the perpendicular side of the furrow at a distance of from four to six or even eight inches, and covered with the earth from the other side. The earth on each side of the hedge should be trod or closely compressed to the roots of the plants: the soil is then pointed with the spade on each side, which closes the operation.

The usual practice is to remove plants from the nursery to the field when between one and three years old. Plants, however, of this age, are for some time in a state of infancy, and require great protection. It is maintained that the removal should not take place until they are at least three years old, and that if they have attained the age of four, five and even six, it is still better. The idea that plants of this age will not thrive well, if transplanted, appears, to be unfounded, as experiments have shown that if properly removed they will grow rapidly, and make good fences in one half the time that will be required by young plants. In removing plants, however, that are four or five years old, great caution is necessary to preserve the roots as entire as possible. In planting them it is necessary that they should be assorted, so that those of the same size may be brought together. This will be attended with many advantages: plants of a similar size and strength, when planted together, keep pace with each other: the growth of the whole is uniform and the hedge becomes a substantial fence of equal height throughout, and free of gaps, the reverse of which will be the case, if this separation be not made. And where hedges have been neglected in these particulars, in their commencement, no care or industry afterwards will render them useful or ornamental.

The dressing and pruning of plants preparatory to the planting of them, is the most important part of the whole operation. The practice of cutting off nearly all the roots, and suffering them to lie for days and weeks, unprotected and exposed to the weather, cannot be too much condemned. The consequence is, that many of them are destroyed, and all seriously checked in their growth. "Men of observation know that in every instance where either trees or herbaceous plants are to be transplanted, the more carefully they are taken out of the ground, the more numerous and entire their roots, and the sooner they are put into the earth again, the less check will they receive, and the quicker and stronger will they afterwards grow." When it can be avoided, the hedge plants should not be lifted from the nursery ground till the very day on which they are to be re-planted; and instead of the severe pruning and dressing, which they too frequently receive, care should be taken to preserve every root and fibre, applying the knife solely to curtailing the tops. When these precautions are observed and the plants are removed at the proper season into well prepared grounds, they will sustain little or no check in their growth.

The labors of the husbandman, in rearing up substantial hedges do not close, however, with the transfer of the plants from the nursery to the fields. Much of their usefulness and beauty will depend upon the care that is bestowed upon them after this operation has been performed. Good weeding, loosening, and placing around the roots new earth for the first three or four years, are of indispensable importance. If the weeds are annuals, an occasional hoeing will be sufficient to keep them down; but if they are root-weeds, that is, perennial or biennial plants, the roots themselves must be eradicated, or they will materially injure the hedge. The first weeding that is given to a hedge should be early in the spring, which will prevent much further trouble for the season, and at the same time exert a beneficial influence, by loosening the soil at the very time when the roots of the hedge-plants are beginning to spread. In loosening the soil around the roots, of either a young or an old hedge, it is well to lay up a few inches of soil to the roots; for if this be done occasionally, it causes the plants to throw out branches near the bottom, which prevent them from growing up thin and open, a common fault in those hedges with which good care is not taken. When a hedge is planted on the face of a ditch, bank or mound, with a projecting space before it of sufficient breadth, a supply of new earth may be laid up to the roots every two or three years. Where hedges are planted on level surfaces, this throwing up of dirt to the roots may be easily accomplished, and it should be attended to at each cleaning.

(From the Southern Agriculturist.)

TURNIPS.

These, like cabbage, arrive at their greatest perfection during the autumn and winter, and are more generally cultivated on our plantations than any other vegetable. The varieties are numerous, but from these may be selected, as best for our purpose, the Early Dutch, Six Weeks, Early Stone, White, Red, and Green Topped Norfolks, and the Globe; also, Ruta Baga, which is perhaps superior to them all, either for the table or for cattle. For this last we shall give directions in a separate section, and will now confine ourselves to the common varieties. The Early Dutch and Six Weeks Turnips, are equally good, and are the earliest varieties cultivated. The Norfolks are also excellent varieties, but come in much later.

The usual course of culture on our plantations, has been to cow-pen a piece of ground, to sow the seed broad-cast and rake them in—after which, very little more is ever done. It is seldom that they are introduced into the garden, and receive that attention which is bestowed on other vegetables, yet even with this management we have seen as fine roots raised as have been produced by any other course, and we ascribe it mainly to the quantity of urine with which the soil is fertilized, by the cattle being penned on it, and which is in a great measure lost to us, in consequence of the injudicious course we pursue in collecting and preserving our manures. Were our management better, the same number of cattle would afford a sufficient manure in the same space of time, for three or four times the quantity of ground; and although, therefore, the practice is successful, yet we cannot but consider it as slovenly and wasteful, conducted as it usually is, on most plantations. There can be no doubt but that it can be so managed as to produce the best results with the least possible waste of manure; but to pen cattle on a piece of land and to permit it to remain with all the dung and soil, saturated with the urine of the cattle, exposed to the influence of the sun and atmosphere, is, to say the least, injudicious. The better plan undoubtedly would be to plough the whole under and sow the seed as soon after the removal of the cattle as possible. But whatever may be said, either for or against this plan, it is not one which can be adopted in the garden, and should it be determined to sow the Turnips there, some other must be resorted to.

The Early Dutch, Six Weeks, and Stone Turnips, are as well cultivated on level surfaces, if not better, than on ridglets, but in England the ridge system is preferred for the Norfolk and other field varieties. Whatever course may be pursued, it will be best to use manure that is partly decomposed. The young Turnips require nourishment from the very first, and if this be scantly furnished them, (which must be the case if only long manure be used,) continue weak, perhaps be overcome by the weeds, and seldom produce a large crop. Should it be intended to cultivate them on a level surface, the manure should be first spread over the ground, ploughed under, and the surface made fine with the harrow. If the soil is clayey, it will require several ploughings to bring it to the requisite tilth, but this kind of soil is not to be recommended if any other can be had—a sandy loam is perhaps the best, and the nearer the soil approaches to this, the better will it be fitted for the culture of this vegetable. If the ridge system be preferred, let furrows be run as near as possible to each other with the plough, the manure spread, and the earth formed into ridglets over it. On the level surface they may be sown either broadcast or in drills, from 12 to 18 inches apart; these drills can be expeditiously made by using a piece of oak scantling of the requisite length, into which, a number of teeth similar to those of a rake (only a little broader,) are inserted: a pair of shafts should be attached for the horse to draw by, which should be so made as to give it as little play as possible. Handles will also be necessary to enable the boy to keep it steady, and to take it out of the ground when turning. By this instrument a large number of drills may be made in a very short time—the seeds should be sown as soon after as possible.

But whether sown on a level surface or ridglets, broadcast or in drills, care must be taken that the seeds be evenly and thinly scattered over the surface, and this can only be accomplished by using a very large quantity of dry ashes or sand, which, separating the seeds, enables the sower to distribute them according to his wishes. If sown on ridglets, the seed may be covered with a rake, or a number of twigs tied together in the form of a broom. If sown on a level surface, the harrow may be used for this purpose, taking care to fix a number of bushes underneath, so as to raise it so high that the teeth may not enter the soil, at the same time let these be so thick as to pass over the whole surface; for the harrow is used now merely as a frame to fix the bushes or twigs to, and it is by these only that the covering ought to be done. Should there be a roller on the plantation, it ought to be passed over the ground, which will press the earth close to the seeds and cause them to vegetate much more regularly and earlier than they would otherwise do. If the seeds are fresh, the plants will appear in the course of a week, and as soon as they are large enough to be handled, they ought to be thinned out from four to six inches apart, which will be sufficient for the first thinning—as soon as they produce bulbs of one or two inches diameter, they may be again thinned to about 12 inches, at which distance they are finally to remain.

The young Turnips now taken up can be used, and will be found very delicate. The after culture consists in keeping them free from weeds, and the soil well pulverized—this can only be effected by the hoe, when sown broadcast; when in drills the space between can only be cultivated with the two lined cultivator, and the hoe only used around the plants, where it will be in requisition but for a short time.

REMARKS

On the general principles of Husbandry.

1. Whatever may be the nature of your soil, and situation of your farm, remember that there is no soil so good but it may be exhausted and ruined by bad tillage, and that there is none so bad that cannot be rendered fertile by good tillage—even barren heath, if it can be ploughed and swarded.

2. The true art of husbandry consists in suffering no crop to grow upon your land that will so far exhaust your soil as to lessen the value of your succeeding crop, whatever profit such a crop may afford you.

3. To avoid this, suffer no one crop to grow two years successively upon the same piece of ground, except grass and buckwheat, without the fertilizing aid of rich manures to support the strength of the soil; and then, change of crops will generally do best, excepting onions, carrots and hemp.

4. Every plant derives from the earth for its growth such properties as are peculiar to itself; this plant when followed successively for two or more years, upon the same ground, will exhaust the soil of those properties peculiar to itself, without lessening its powers to produce some other plants; this fact is most striking in the article of flax, which will not bear to be repeated oftener than once in seven years, and is common to all crops, with the exception of those mentioned above.

5. To avoid this evil, arrange your farm into such divisions as will enable you to improve all the variety of crops your lands may require in such regular succession, as to form a routine of five, six, or seven years according to the nature, quality, and situation of your farm.

6. This method will make poor land good, and good land better. Try and see.

[*Montgomery Co. Free Press.*

BRITISH AGRICULTURAL REPORT FOR AUGUST.

This month has been a busy one; much wheat has been hurried into barns in no very dry state; many ricks have been seen to smoke most furiously. and some have been taken down, even on a Sunday, from the dread of their taking fire, or, at least, being spoiled before the Monday. On the other hand; much wheat has been carried in good order, particularly in those quarters where the warmth of the soil brought the crop forward enough to be housed in the early part of the month. In the south of England, and in the earliest districts, the wheat harvest is nearly concluded, and throughout great part of the kingdom very far advanced. But in some parts of the north, and of Scotland, it has but just commenced. The samples of new wheat which have come to market are various as to condition, and their quality tolerable, but not superior. Rumors vary as to the extent of the produce, some asserting that the wheat yields better than it has done for years past, others complaining of deficiencies in the ears, and of partial blight.—It seems, however, generally conceded that the yield is better than that of last year, but by how much, it would be utterly unsafe, as yet to offer any opinion; crops really vary so much, and reports still more so.

The progress of the barley and oat harvest is very irregular; the bulk, in general, is certainly great, but there exists many not inconsiderable exceptions. Oats are generally a good crop; the samples which have been brought into the market have, in many instances, been fine as to quality, and the crop is of good promise, both in quality and quantity. Turnips have not grown so universally, or rapidly, as might have been expected, especially on soils of moderate and inferior fertility.—The Swedes are frequently rather backward in growth, and occasionally patchy and weedy; but, upon the whole, there is a prospect of a good supply of turnips, for the breadth of the crop is extensive, and the failures comparatively few in number. The prospect of an abundant supply of food for cattle, both for the present use and for the further demands of the winter, does not seem to have a commensurate effect on the price of live stock. At the fairs in the south and west of England sheep have been very dull of sale, and lower in price. The meat market has experienced some depression, and prices have been lower, with a dull trade; but, on the whole, looking to the country generally, there has been but little variation during the course of the month. Horses are certainly in demand, and obtain fair prices, although not high ones, except for choice animals, which are in limited supply. Pigs are very low, and nearly unsaleable. Milch cows, of good quality, maintain value. A large breadth of potatoes has been planted this year, and report speaks favorably of the actual produce of the early sorts, and the expected yield of the latter varieties. Wool maintains its price, or is rather on the advance. Anglo-merinoes, except teg wool, unshorn as lamb, does not maintain its relative superiority of price over Southdown, although it is now in very few hands. The woolstaplers, however, do not seem active or eager in their purchases.

To Correct Damaged Grain.—Musty grain, totally unfit for use, and which can scarcely be ground, may, it is said, be rendered perfectly sweet and sound by simply immersing it in boiling water, and letting it remain till the water becomes cold. The quantity must be double to that of the grain to be purified. The musty quality very seldom penetrates through the husk or bran of the wheat. In the hot water, all the decayed or rotten grains rise to the surface, so that the remaining wheat is effectually cleansed from all impurities, without any material loss. It is afterwards to be dried, stirring it occasionally on the kiln.

[*N. E. Farmer.*

HORTICULTURE.

FRUIT TREES.

On the advantage of making timely preparation for planting Fruit Trees, also the proper way of planting and taking care of them.

A tree derives much of its nourishment from the ground it stands in; it is therefore a great shock to nature to deprive it of its native aliment, and expose the roots for even a short time to the common atmosphere. It is highly necessary that this exposure should be made as short as possible, or the tree will die or become stunted, which is nearly as hurtful; to accomplish this desirable object, I advise to have the holes where the trees are designed to be planted, dug some time before the trees arrive from the nursery. It is better, if other circumstances will admit, to prepare the ground for the orchard by previous culture of summer crops, or at least to have it well and deeply ploughed, rendering the ground mellow and easy to dig the holes for the trees.

The proper distance for planting Apple and other fruit trees ought to be regulated by strength, or thinness of soil, the kind of fruit to be planted, &c. the richest soil and the larger growing trees should have most space. I think in most cases, especially on farms where land is plenty, and where the owner will be most likely to cultivate crops, between forty or thirty-five feet from tree to tree will be a good distance for Apple, twenty-five feet to twenty for Pear, Peach, Plum, and Cherry Trees, the first requiring twenty-seven trees to the acre, the second thirty-six, third sixty-seven, and the fourth one hundred and five trees to the acre; thirty feet apart may do for Apple trees in some cases, and then an acre will contain forty-nine trees.

Much trouble will be saved, and much accuracy in planting will be insured by marking the sites of trees by stakes previous to digging the holes; or if the orchard is to be large, let in stakes, in the four outside rows of the intended orchard from which a careful ploughman can strike furrows through from stake to stake, and then cross the same at right angles, according as the stakes are laid out, and then dig the holes at the intersection of these furrows, three or four feet wide, and two spits deep; the under spit or sub-soil should be cast around, and its place supplied with rich mould of some kind. All being ready proceed to plant the orchard as follows: plant the four outside rows of trees first, of equal distances apart, by a tape line, chain, or two slender poles will do very well, if they will reach from tree to tree, then plant a row correctly through the middle each way, which shortens the sights and makes less walking, in sighting the trees in place, which must be done from the two outer trees between which you are planting. Prepare the trees before they are planted, by trimming all bruised roots, and by removing all limbs but three or four, and the centre or leading branch, for we send out the trees from the nursery without trimming the heads of the trees, leaving wood enough to enable purchasers to trim the heads of trees low or high to suit their own views—and it is necessary to be particular to plant the trees not more than two inches deeper than they stood in the nursery, and spread the roots equally all around on the mellow earth, in the hole placing the best roots north-westerly, which will enable the tree when grown to withstand the hard winds from that quarter; then fill in the finest mould on the roots, the assistant gently raising, and shaking the tree to make the fine mould run in among the small roots and fibres; as the earth rises about the tree gently tread it in until all is level, being careful not to bruise the bark of the roots in treading; fix the stake on the north-west side and tie it fast to the tree at the top, crossing the bandage between the tree and the stake, to prevent rubbing the bark off.

The ground about the trees should be constantly kept mellow, and neither weed, grass, nor crops, permitted to grow within three feet of the tree the first year.and four feet the next year, and so on according to the probable gradual extent of the tree roots—for crops of grain or grass ought not to be raised over the roots of fruit trees, depriving them of the warming influence of the sun, and the surface nutriment, which would be exhausted by the crops, thereby forcing the roots of the trees deeper into a more unfriendly soil in search of sustenance. If crops are to be raised at all in the orchard, potatoes, beans, dwarf peas, vines, or any dwarf crops which require frequent cultivation are best, if manured; for the orchard ground ought to be made rich and *kept so,* especially after it commences bearing. Our worthy citizen, Richard Cromwell, who has for many years supplied Baltimore market with about $2000 worth of very superior peaches, raises no crops among his trees, notwithstanding he ploughs among and digs around them five or more times every season. If thrifty trees, loaded with large, fair, delicious fruit in a short time are desirable, carefully follow the above hasty directions, and get the kinds of fruit I will recommend, and I will insure success, unless the ground is too stiff or wet. Robert Sinclair.

(Communicated by Mr. Prince, of the Linnæan Botanic Garden, for the American Farmer.)

CHOICE STRAWBERRIES.

(Concluded from page 252.)

Keens' Seedling. *Pr. cat.—Pom. Mag.* Keens' New Pine.

This variety was raised from the seed of Keens' Imperial, thus affording a proof that *like produces like* in the vegetable kingdom, and that the seeds of a fine variety will probably produce fine varieties,—but my own opinion in relation to this point is that one parent at least should be of such character.

The great merits of this strawberry are, that the fruit is very large, very good, and that it is a very prolific bearer—it also carries well, and bears its fruit high enough above the earth to keep it free from the soil, and it is one of the most vigorous varieties. Its leaves are broad and dark green, and the healthiness of its appearance is scarcely equalled by any of its class, except the Old Pine, and if this be inferior to that in flavour, it is much more than equal to it in size and productiveness The following description of it is given in the London Horticultural Society Transactions:—

"A most excellent bearer, ripening early, soon after the Scarlets, and before any other of the Pines; the fruit is very large, round or ovate, some of the largest assuming a cock's-comb shape; when ripe of a very dark purplish scarlet next the sun, the other side paler, slightly hairy; seeds (grains) a little embedded in the polished surface of the fruit, which has usually a furrow at the apex; the flesh is firm, solid, scarlet, without any separable core, tolerably high flavoured; the calyx is of moderate size, hairy, incurved; the footstalks of the leaves are tall, slightly hairy; the leaflets very large, roundish, for the most part flat, reclined, of a very smooth shining dark green, with coarse serratures which are large and rounded; the runners are small, numerous, greenish yellow, and slightly hairy; the scapes are of moderate length, sometimes very short, branched, with short weak clustered peduncles middle-sized, opening early."

Sweet Cone. *Lond. H. Trans. Pom. Mag.*

This variety was raised by Mr. Knight in 1817, from a seed of the Old Pine, impregnated by the Old Black, thus combining the qualities of the two best flavoured varieties then existing in the English gardens. Its greatest affinity is to the male parent, and it has consequently been placed by the London Horticultural Society in the class of Black Strawberries. It is a moderate bearer, but produces fruit more abundantly in a shaded and moist situation than when exposed to much sun. It is hardier than the Old Black variety, and the plants grow bushy and produce few runners. This deficiency is however frequently supplied by the first scapes forming young plants, which when put into the ground emit roots. The leaves are yellowish, footstalks erect, and slightly hairy; leaflets small, oval, coarsely serrated, convex, their upper surface very slightly hairy; scapes as long as the leaf stalk, upright, partially pubescent, with short pedicles; calyx large, reflexed; petals rather large, obovate; stamens of moderate length, with perfect anthers; fruit of good size, with a neck, a lengthened cone in shape, bright shining scarlet; grains prominent; flesh firm, red, very rich and high flavoured.

THE PEACH TREE.

From a desire to encourage the culture of Peach trees, we offer the following as the result of experiments and observation.

It is generally known that *worms,* near the surface of the earth, destroy them by eating the bark; the object is therefore to find a preventive, in order that the trees may become aged in a healthy state.

It is evident that these worms pass through the common change, and assume the form of *millers,* early in the summer, and deposite their eggs in the bark as low as they can find access to it; and that the worms proceeding from them, begin to operate in the latter part of the summer; when they have been found the size of a common pin. If suffered to remain they grow to the thickness of rye straw; each of them girdles the tree about an inch, and the wood from the wound to the heart, dies. Hence it is, that a single wound impairs the vigor of the tree, and a number of them kill it. The point to be gained, is to protect the tree from the millers, and by a simple method we have succeeded for several years, which is recommended with full confidence.

About the first of May, remove the earth from the body of the tree, and skirt it to the height of fifteen or sixteen inches, *in such manner as to exclude the millers,* burying the lower part of it in the earth. We have used straw cut to the length and about half an inch in thickness, bound on with twine. This should be removed about the first of September, as we have sometimes found the young worms in the upper part of the straw, being then readily discovered on the surface of the bark, covered by a little gum. The process should be commenced when the tree is young—they have been found in a rapid growth the first fall after it sprouted. Thus a few minutes in a year devoted to a tree, will probably protect it against this cause of decay; a very trifling expense compared with the value of this healthy and delicious fruit.

Jonathan Brace.
John I. Wells.
Hartford, Con. Sept. 8, 1830. Wm. H. Imlay.

RURAL ECONOMY.

(From the Complete Grazier.)

Of the Management of Milk and Cream and the Making and Preservation of Butter.

(Concluded from page 253.)

With respect to the *operation of churning,* we would particularly remark, that it ought to be regularly continued, till the butter is *come,* or formed; nor, unless from absolute and irremediable necessity, should any assistant be allowed to churn; because, if the motion be, in summer, too quick, the butter will in consequence ferment and become ill-tasted; and, in winter, it will *go back.* The business of churning may, however, be much facilitated, by immersing the pump-churn (if such be employed) about one foot deep into a vessel of cold water, and continuing it there till the butter is made. Where other churns are made use of, the addition of one or two tablespoonfuls of distilled vinegar, after the cream has been considerably agitated, will, it is said, produce butter in the course of an hour. After the butter is formed, the usual practice is to wash it in several waters till all the milk is removed; but some advise the milk to be forced out of the cavities of the butter by means of a flat, wooden ladle, furnished with a short handle, at the same time agitating the butter as little as possible, lest it become tough and gluey. The beating of butter up by the hand is an indelicate practice; and, as it is hurtful to the quality of the butter, if too soft to receive the impression of the mould, may be put into small vessels, and these be permitted to float in a trough of cold water beneath the table, *without wetting the butter,* which will soon become sufficiently firm. Or, when butter is first made, after as much of the milk has been got out as possible, it may be thinly spread on a marble slab, and the remaining moisture be absorbed by patting it with clean dry towels.

On the *making up of butter,* and particularly on the admission of water, whether warm or cold, into the churn, the following pertinent observations occur in the Agricultural Survey of Sussex, on the dairy system of that country;—"water is well known to be a great dissolvent; at least, if it be not essentially so, it serves as a conductor to air, which is universally such. Fresh butter, then, in consequence of imbibing water, and water being saturated with air, is always in a progressive state of decay. Not so when water is excluded; its oleaginous parts are admirably calculated to secure it from putrefaction: and it is not improbable that butter might be made with as little trouble as the present method, to keep the whole year fresh and sweet, without the least particle of salt, solely by the exclusion of water. In order to effect this, the floor of the dairy should be kept perfectly dry, for water thrown down in hot weather will assuredly rise again in steam, and affect the milk with its humidity. The vessels used for holding the milk, the churn and all the dairy utensils, after being first washed clean, should then be rinsed a first and second time with sweet milk,—a cruet, washed ever so clean with water, will cause vinegar to become dreggy; but if rinsed with a little of the same, will always appear limpid and clear. No water to be put in with the cream when it is churned. The butter, as it is taken out, to be put into a tray, full of holes, and placed over any other vessels; but not to be squeezed into lumps, as it will drain the better for being loose in its texture. It should then (after having well drained be removed to a tray without holes, and be kneaded with the hands (first rinsed in whey) and formed into a thin flat cake, slightly sprinkled with salt, and left in that state for about half an hour; by which time the salt will have extracted the whey, and it may be made up in the usual manner."

Where it is intended to be kept, or sent to a distance, it is salted by the process immediately to be described, and is put into casks, which contain respectively 28, 56, or 84 lbs , and usually denominated half firkins, firkins, and tubs. Previously to putting the butter into these vessels, especial care must be taken, that they are well seasoned by frequent washing and exposure to the air for two or three weeks. As it is very difficult to season new firkins, it will always be preferable to employ those which have been already used, where these can be returned to the dairy-owner. The most speedy method of seasoning firkins is, by the use of unslacked lime or a large quantity of salt and water well boiled; with which they should be repeatedly scrubbed, and afterwards thrown into cold water, to remain there three or four days till wanted. They should then be scrubbed as before, and well rinsed with cold water; and, before the butter is put in, *every part* of the inside of the firkin must be well rubbed with salt.

The ordinary process of *salting butter*, after the milk has been forced out of it in the manner already described, is, to work into the butter one or two ounces of salt, so thoroughly that it shall be equally incorporated with the mass. The salt employed for this purpose should be of the purest kind, well dried and broken down but not completely pulverized. Dr. Anderson, however, recommends the following preparation, which he has experienced to be much superior, as it not only prevents the butter from becoming in any degree tainted or rancid, but also improves its look or appearance, while (what is of more importance) it imparts a sweeter and richer taste than could have been effected by the use of common salt only. Let two parts of the best common salt, sugar and saltpetre, of each one part, be completely blended together by beating, and add one ounce of this mixture to every pound of butter; incorporate it thoroughly in the mass, and close it up for use. It will be necessary, however, to keep butter, thus prepared, for two or three weeks before it is used, otherwise it will not taste well; but, if properly cured according to the hints above given, Dr. A. states, that it will continue so perfectly sweet for three years, as not to be distinguished from newly-made and salted butter. The best butter is that made during the summer; but by adding a certain portion (which experience only can determine) of the juice expressed from the pulp of carrots to the cream previously to churning, winter-made butter will acquire the appearance and flavor of butter that has been churned during the prime part of the summer season.

When butter is to be exposed to the heat of a warm climate it should be purified by melting, before it be salted and packed up. For this purpose, Dr. Anderson directs it to be put into a proper vessel, and this into another containing water, which must be gradually heated until the butter be thoroughly melted. In this state it must continue for some time, when the impure parts will subside, and leave at the top a perfectly pure transparent oil; which, on cooling, will become opaque, and assume a colour nearly resembling that of the original butter, except that it will be a little paler and of a firmer consistence. This refined butter is then to be separated from the dregs, salted, and put up in the same way as the other butter: it will continue much longer sweet in hot climates, as it retains the salt better. Dr. Anderson further states, that butter may be preserved sweet without salt, by adding a certain quantity of fine honey, in the proportion of one ounce of the latter to a pound of butter, and mixing them thoroughly, so that they may be perfectly incorporated. A mixture of this sort has a sweet pleasant taste, and will keep for years without becoming rancid.

In different counties there are several variations in the making of this primary article of domestic consumption; and among these, the following method of preparing it, which is peculiar to the counties of Somerset, Cornwall, and Devon,—where it is termed *clotted*, or *clouted cream*,—is too interesting to be omitted. The milk, when twenty-four hours from the cow, is put into a kettle over a slow fire, which should be hot enough to bring it *very near* to the boiling point in about *two hours*, and not less. A person (usually a child) is set to watch it; and, the moment a bubble rises to the top, formed by the vaporized milk, the whole is taken off, and set to rest for twenty-four hours more. At the end of this time, if the quantity of milk be considerable, the cream will be an inch or more thick upon the surface. It is now divided with a knife into squares of a convenient size, and removed. The milk, remaining after the cream is taken off, contains little beside the watery particles in its original composition. The dairy women, in the above mentioned counties, say that milk, thus treated, will yield *one-fourth* more butter than is produced in the common way, and that a few strokes of the churn will form such cream into excellent butter. At present this cream is chiefly confined to the breakfast table; it is excellent for use with coffee, but when put into tea, it injures its taste, by being instantly converted partially into butter which rises to the surface: when prepared as above, it will keep somewhat longer than common cream.

In the neighborhood of *Epping*, which has long been famous for the quality of its butter, the following is the common process:—the milk, after standing twenty-four hours, is fleeted, and the skimmed milk is drawn off from the leads into vessels of an increased depth, which is called *doubling*. There it remains for twelve or twenty-four hours more, as the weather permits, during which time, as the cream rises, it is fleeted two or three times. It is then *trebled*, or put into deep tubs, where it is occasionally skimmed, and kept so long as any appearance of the cream is found to form on the surface. The butter made from these after-fleetings, is, however of a paler colour and inferior quality to that made from the first cream; it is, therefore, usually churned apart. In making the first quality, when the butter is come, the dairy-woman throws it first into clear water, and then upon a board, and with her hand squeezes out all the water; sprinkling, at the same time, a little salt over the whole mass, which is then divided into pounds, and they, as they are weighed, are again squeezed and rolled out to the length of about fourteen inches. So far, the method nearly accords with that in most other districts; but there is this peculiarity in the management of the Epping dairy women, that they consider a small proportion of acid; either natural or artificial, necessary to ensure a good churning; for which purpose they either mix sour cream with the sweet, or they employ lemon juice, and sometimes rennet. The practice merits attention on dairy farms which possess pasture of a short and sweet nature; but where the herbage is coarse, or the cows are fed on roots, or other succulent artificial food, the fresher the cream is churned, the better will be the butter.

In Ireland where the butter is generally of very fine quality, the common method is, to churn the milk and cream together: the milk being allowed to stand so long as it wheys on the top. It is thus said to produce more butter than in the usual mode of churning the cream alone; and the butter-milk is preferred, by those who are accustomed to it, to skim-milk: but this process excludes the making of the skim-milk cheese, and the butter-milk is said not to be equal to skim-milk in fattening pigs.

BLOATING IN CATTLE.

A gentleman recently from France, communicates to us the following cure for this commonly fatal disease.

The Volatile Spirit of Ammonia is found to produce instantaneous relief. Its action is chemical, decomposing the gas generated in the stomach by fermentation.

M. Thenard, the celebrated French professor of Chemistry, speaking of the utility of scientific investigations, and of the innumerable instances where they had been found subservient to the general interests of society, among many others, adduced this as an example, and related the following anecdote, in illustration of its effects.

A short time previous, while on a visit to his native village in some remote part of France, a drove of 30 or 40 cattle broke into a field of rank clover, and all of them became affected with bloating, and when discovered some of them were so far gone as to fall down upon their fore legs. He called immediately for Spirits of Ammonia, but none could be found in the place, and they were obliged to send four miles to a neighboring village before it could be procured. He commenced by giving it to those most severely affected, and so on to the others, and all were saved excepting two. If there had been no delay in getting the remedy, probably none would have been lost.

The dose for a cow or ox is a table-spoonful; for a sheep a teaspoonful, diluted in water or any convenient liquid. If not effectual, repeat the dose.

CIDER.

As the time for laying in cider has come, I would observe, that mustard seed put into new cider will keep it much better than any other thing I have tried. I put a half pint of common mustard seed into a barrel of new cider, last fall, and let it remain on the lees without drawing off, till it was all used, and it kept it perfectly sweet till the last—not the new sickly sweet, but more like mellow old wine: the cider tasted a little of the mustard, but some gentlemen who drank of it, thought it was improved by it. As the last year was the first time I put in the seed, I cannot say that it will always have the same effect; but so simple a thing is worth trying—for my cider was decidedly the best I ever drank. S.

[*Newburyport Herald.*

MISCELLANEOUS.

BATHING.

Sir A. Cooper mentions, in his lectures, that he has been long accustomed to wash the whole body with a wet sponge every morning, instead of immersion in the cold bath. Having made trial of this method, I can confidently recommend it—

1st. To many classes of invalids who could not endure a plunge into cold water.

2d. To those who cannot afford, or conveniently obtain the luxury of the full bath. The want of servants, the difficulty of getting water into one's chamber, the distance of a suitable bathing place, are all obviated at once by this safe, simple, and cheap substitute for immersion.

3d. Those who have not time for full bathing. This method adds only from one to five minutes (at discretion) to the ordinary time of dressing.

4th. To *ladies* for themselves, and to *mothers* for their young children. The sponge can be so handled as to give no more of a shock than wiping with a wet towel. If pretty full, it will be as good as a common bath. If well filled and squeezed over the head and shoulders, it answers all the purposes of a shower bath. Hence it can be adapted to the state of a child's health, temper, &c.

Directions.—Choose your sponge carefully, and keep it always scrupulously clean. If these cautions be not observed, the whole substance will soon be offensive, and perhaps even injurious. Stand in an empty tub, or on a piece of floor cloth while using it. Graduate the quantity of water taken up in the sponge, by the state of health, the temperature of the morning, and other circumstances. In drying the skin, use a clean coarse towel, and rub the surface well. The operation will generally be followed by a cheerful glow, and increase of vigour; but if the reverse should take place after two or three experiments, (varying the quantity of water, the time of exposure, &c.) discontinue it, at least for the present.

[*Charleston Courier.*

MOUNT JOY SPRING.

The following paper has been handed to us for publication, by one of our most respectable citizens. If the waters of the spring possess even a moiety of the virtues attributed to them, and the respectability of the source of the paper would seem to leave no room for doubt, then the true *Fountain of Hygeia* has been discovered. As the Rail-road will pass near this spring, it will afford a most pleasant trip—being in one of the most romantic places in the union. [*Ed. Am. Farmer.*

Mount Joy Spring is situated on a ridge of the Allegany mountain, two or three miles east of the north branch of Potomac, about seven miles west of New creek, eight miles south of Westernport, ten miles southwest of Moseley's store, at the mouth of New creek, within twenty-eight miles of Romney, and seventy-eight west of Winchester, in Hampshire County, Virginia.

It was first discovered by Elias Browning. Three years last February he had been confined to his house and bed ten weeks. Sometimes he apprehended it was a nervous cholic, at others, some kind of a consumption. Twice there came near a quart of mortified blood from his stomach, and he thought himself brought near to death.—About three quarts of water were brought to him from this spring, which he drank and was so much relieved that next day he was up with an appetite to eat. He continued to drink the water about three weeks, when, by the mercy of God, he counted himself a well man. He was bald, and by wetting the top of his head twice, the hair came again. A swimming in his head rendered him incapable of working: by having it poured on the back of his head he obtained relief. He was hard of hearing and was relieved by bathing his head and putting the water in his ears, having his head well bound up.

His eyes were weak, so that it was difficult for him to read with spectacles, by washing them with the thick scum that collects on the spring he can read with some spectacles by good fire light. A man who had very little use of his arms went to the spring one Sabbath day, and the next Thursday returned home well.—A woman who was badly poisoned on her arms and face, that doctors failed in their endeavours to cure, by washing with and drinking the water got well.—Another woman who had such rheumatic pains as to be unable to help herself, but had to be carried, her clothes put on, and her victuals cut, bathed in and drank the water ten weeks and can both walk and work.

A man, who said he had spent $200 with doctors, came there with a consumption, staid two weeks, and said he felt very well.—One who was troubled with fits got relief.

It gives every one a *strong* appetite for victuals, and by drinking heartily it is a present cure for the cholic.—Bathing with this water never fails to cure the headach.

A number of persons who came there with consumptions, blindness, deafness, baldness, and other complaints, said they were relieved.

Different witnesses certified that a girl of fifteen had never walked or talked and by using a few gallons of this water could do both.—An old man after using this water said he felt himself twenty years younger.

The water is somewhat thick and greasy. When it is not disturbed a whitish scum rises on it, and a thick stuff of yellow and pale red collects, which is excellent for sore eyes, or sores of any sort. Elias Browning has twice seen spots of brownish stuff in the scum, the colour of British oil, and spangles as yellow as the filings of gold.

Extract of a letter from Elias Browning to Jesse Janney, dated Dec. 13th, 1809.

Daniel Janney saw Elias Browning, he was so low he was unable to go to the spring; but sent for some of the water, and was soon relieved so that he went. The weather was warm and he had his hat off and was washing his hands and face in the water. Being bald headed a gnat or musquito bit him and he put up his hand to drive it away, and wet the place. Some time after he discovered the hair to be growing. He then went and applied the water more on the fore part of his head; when Daniel Janney saw him the hair on the part that was first wet, had been cut twice, and on the other a new soft suit had grown to a considerable length.

Two or three persons who had fits, went away relieved last summer; a woman afflicted with the rheumatism ten years, and for some time had to be carried in a chair, was very much relieved, so that she could sew, spin, knit, &c.; though her hands were before so drawn up as to be nearly useless.

James Nickols's wife was in a very low state of health, with a bad cough, and very much afflicted with consumption, so that it was believed if she set out to go to the spring she would never see home again. She was there only three days before the cough ceased, and after six days came home much better, looks fresh and has gained eighteen pounds. James Nickols was very bald, he wet the top of his head with this water about the last of October, and a new suit of hair is coming.

Nathan Spencer, son of Samuel, had a pain in his breast, he went to the spring with James Nickols, and got relief.

When James Nickols was there, he saw a man that had been nearly blind eleven years, and so blind the four last years, that he could see nothing except a small appearance of fire when it was before him. In less than nine days he could go about the woods and gather wood to make a fire.

Another man had been blind of one eye forty years by looking at an eclipse.—By washing with this water he can see to read with that eye while the other is blindfolded.

One or two men who came there very deaf were recovering their hearing very much.

James Nickols thinks it is the best spring for inward complaints he has ever heard of. Some people who have used spectacles several years, say by washing their eyes in this water they can see to read as well as ever without any spectacles.

George Fall, a man about seventy years old, was bald headed, and by washing in this water a new suit has come on his head again. It is said, it has cured rheumatism in several instances, as well as consumptions, hysterics, and the itch. Jesse Janney.

We were walking in the garden among the flowers; my companion stopped by a border, principally of large carnation poppies. "O," says he, "what beautiful, what splendid flowers; but why do you not destroy those miserable weeds that so thickly and offensively occupy the interstices of the border?" "Wait till evening and I will tell you," I replied. We walked to the same place again in the evening. "O, what delicious fragrance, how delicate, how sweet! and yet so fine, as,—like the whispered music of the Æolian harp,—it is scarcely perceptible—whence this delightful sweetness?" enquired my friend. "That, sir," I replied, "is the fragrance of that miserable weed, which you would have had me destroy this morning, and in it you have the answer to your question. That is the lovely *mignonette*—and now where are your beautiful, splendid flowers, the poppies? In the morning they were here in all the ostentation of splendid robes, but where are they now? Scattered over the walks; the sun shone upon them and the gentle breeze came and they were gone—leaving neither beauty nor fragrance behind. But this little plant, the appearance of which was so offensive to you this morning now fills the very air with rich fragrance—the one is the glare and ostentation of external show, the other the richness of mind and the sweetness of modesty."

A SINGULAR ADVENTURE.

Once upon a time a traveller stept into a post coach. He was a young man just starting in life. He found six passengers about him, all of them grey headed and extremely aged men.—The youngest appeared to have seen at least eighty winters. Our young traveller was struck with the mild and happy aspect which distinguished all his fellow passengers, and determined to ascertain the secret of long life and the art of making old age comfortable. He first addressed the one apparently the oldest, who told him that he had always led a regular and abstemious life, eating vegetables and drinking water; the young man was rather daunted at this, inasmuch as he liked the good things of this life. He addressed the second, who astounded him by saying he had always eat roast beef and gone to bed regularly fuddled for seven years,—adding, that he always depended on *regularity.* The *third* had prolonged his days by never seeking or accepting office—the *fourth* by resolutely abstaining from all political or religious controversies, and the *fifth* by going to bed at sunset and rising at dawn. The *sixth* was apparently much younger than the other five—his hair was less grey and there was more of it—a placid smile, denoting a perfectly easy conscience, mantled his face, and his voice was jocund and strong. They were all surprised to learn that he was by ten years the oldest man in the coach. "How," exclaimed our young traveller, "how is it you have thus preserved the freshness of life—where there is one wrinkle on your brow there are fifteen on that of each and every one of your juniors—tell me, I pray, your secret of long life!" "It is no great mystery," said the old man, "I have drank water and drank wine—I have eat meat and vegetables—I have held a public office—I have dabbled in politics and written religious pamphlets—I have sometimes gone to bed at sunset and sometimes at midnight, got up at sunrise and at noon—but I *always paid promptly for my newspaper!—Rochester Craftsman.*

RECIPES.

CURE OF HYDROPHOBIA.

The following appeared in a late Liverpool paper, as a communication. What is now well known of the extraordinary properties of the chloride of lime, gives plausibility to the suggestion of its efficacy as a preventive of hydrophobia:

We are indebted to M. Coster, a French physician, for the following valuable discovery, as a preventive to hydrophobia:—Take two table spoonsful of fresh chloride of lime in powder, mix it with a half pint of water, and with this wash and keep the wound constantly bathed, and frequently renewed. The chloride gas possesses the power of decomposing this tremendous poison, and renders mild and harmless that venom against whose resistless attack the artillery of medical science has been so long directed in vain. It is necessary to add that this wash should be applied as soon as possible after the infliction of the bite. [*Raleigh Register.*

REMEDY FOR POISONED ANIMALS.

Raw eggs given to sheep and cattle which have been poisoned by eating laurel or ivy leaves, it is said will effect a speedy cure. The dose is one egg for a sheep, four for a cow. They can be administered by simply breaking the shell and slipping the yolk and as much of the white as practicable, down the animal's throat.

CURE FOR RING WORMS.

A friend has sent us the following as a *certain cure* for the *Ring Worm,* having seen its efficacy tested within a month past effectually, viz:—A few Spanish flies put into whiskey and rubbed on the part affected two or three times a day, will produce an immediate and certain cure. [*Elkton Press.*

THE FARMER.

Baltimore, Friday, Oct. 29, 1830.

Intemperance.—The communication from a distant correspondent on the subject of "*Temperance Societies*," has been disposed of as he requested, in case of its non-appearance in the Farmer—being somewhat out of "our line of business." For our own part, we do not consider the prevalence of intemperance and crime in this our day, to be so very much greater than that of "old times;" and yet, doubtless we have enough of both to satisfy both Bacchus and the hangman. While grass grows and water runs, there will be brandy; and while brandy and weak minded men exist, there will be drunkards. Intemperance is an evil which may be mollified, but not eradicated;—simply because you cannot make all men wise men. Temperance societies may do and indeed have done much towards ameliorating the condition of drunkards; but we conceive the right society for this business,—and which can do more in a month than all the Temperance Societies in the Union, with all their tributaries, can do in an age,—is *Female Society*. Let the ladies resolve to suppress intemperance, and it is done;—and it may be done in something after this manner: Wives will contrive to make their houses and homes the most agreeable places their husbands can find at which to pass their leisure time—then they won't go to the grog shop. Young ladies will cut the acquaintance of all young men of dissipated habits, and they in their turn will cut their acquaintance with the bottle. Young ladies have much reason for such a course towards such young men; because a drunkard is a tottering staff for friendship to lean upon, and therefore they cannot associate with them as friends; and in the more intimate relations of love, it is a still more hopeless case; because it is impossible for pure love to exist in a drunkard's breast. He may have fitful moments of affection; but think you he can love you, and still leave your company for that of a grog shop? And this is an interesting matter for the consideration of wives also. It is the nature of the whole animal world, to seek those things and places whence they derive the most pleasure, and hence the hog wallows in the mire, and the drunkard revels in his debauch. If by any means a wife can contrive to make her company more agreeable to her husband than the society of the tavern, he will not forsake it; but will look as anxiously for the hour of suspended labour that he may enjoy it, as he does now for an opportunity for his bacchanalian resort. It is believed that many husbands have been driven into the intemperate use of ardent spirits, by the injudicious conduct of their wives—for who can bear the eternal ding-dong of a scolding wife? If the choice is confined to the two, there will be no hesitation even with the most circumspect, between even a grog shop and some houses tenanted by some wives. The Temperance Societies should take this matter into serious deliberation, for it is worthy of it. They must contrive some way to prevent the intemperate use of tongues, as well as of ardent spirits, before they can hope for entire success to their labours.

Another powerful ally might be brought to the aid of Temperance Societies, and until its hearty concurrence be obtained, they can hope for little success—we allude to public opinion. That is now, unfortunately, with the *enemy;* so far at least, as to aid and succour the intemperate, clandestinely if not openly. We cannot hope to see much progress made in the suppression of intemperance, while respectable people admit to their society the subjects of it.

It is a common remark, that the people of the United States are much more intemperate than those of any other country. This is quite probable; but if so, the cause is not to be looked for in the greater degree of moral depravity, but in the condition of the people of this country—unrestrained and free as their own eagle; with no oppressive landlords to toil for, nor tithe gatherers to wait upon. If the people of other countries are not as intemperate as ours, it is not for want of the disposition, but the ability to be so, of which we have abundant testimony whenever they reach our shores. But whatever be the cause or the degree of intemperance in the United States, the perfect remedy will only be found as above directed. Let the ladies, therefore, look to it—if *they* resolve upon the suppression of intemperance, by their legitimate weapons, all the powers of the still and of Bacchus, shall not prevail against them.

Urbanity of the French Populace.—We have little doubt that the Parisian populace owe a part of their urbanity and politeness to their familiarity in the public and royal institutions and gardens, with the rarest and finest productions of nature and art. We think we can see something of the same kind producing in the London populace, in consequence of their greater familiarity, within the last fifteen years, with the collection in the British Museum, and from their comparatively frequent habit of viewing various exhibitions of pictures, sculpture, and other objects. That there is a powerful taste for such exhibitions is proved by the immense number of persons who, during the last two years. have visited the gardens of the Zoological Society.—*Mag.*

Latest Foreign News.

By the James Cropper at Norfolk, Liverpool dates to the 14th September have been received. England, Austria, Prussia, the king of the Netherlands, and the king of Wurtemburg, have recognised the legitimate rule of the people's king in France, by renewing the credentials of their ambassadors at his court; that a similar sanction is momently looked for from Russia, and that the kings of Spain and Naples, who, from their near affinity to the deposed monarch, would naturally be the most reluctant to the measure, would find powerful considerations not to deliberate too long, as to the course which circumstances must eventually force on them.

But, notwithstanding the tolerant spirit in which the new order of things in France seems to be regarded by many of the neighboring sovereignties, the papers assure us, that there is not so much cause for satisfaction in the temper and tendencies of domestic parties. Many enlightened Frenchmen, it is said, have expressed and continue to express, great uneasiness as to the course which French politics appear to be taking. Most of the liberal journals, (say the latest English dates) and all the ardent part of the population, express great distrust in the present chamber of deputies, and are very clamorous for a new election. It is supposed that the disaffected would desire to render the government still more republican—still to weaken the executive power, by urging upon the chamber the abolition of the peerage.

The Revolution in the Netherlands.

The spirit of hostility to the existing dynasty hourly increased.—The separation of Holland and Belgium was the rallying cry. The interesting details, from the Brussels papers under date of 9th and 10th Sept. occupy many columns—they contain animated appeals to the patriotism and courage of the people to sustain their rights at all hazards, declaring that they are the strongest party—that the government has lost all moral power—that it is on the people's side—that the army is nothing, for the Belgian soldiers will not shed the blood of their brethren. All the provinces are declared to be in insurrection, the town and garrisons only excepted, and that theirs was a constrained obedience. As the states general were to assemble in Brussels on the 13th Sept. it was supposed no decisive events would occur before that was accomplished.

RUSSIA.

It appears by accounts from St. Petersburgh of the 25th of August, that the Emperor of Russia had recalled his interdict against French vessels bearing the tri-coloured flag. His Imperial Majesty has issued an order that all ships bearing the tri-coloured flag may now enter the ports of Russia. This decision was in consequence of the arrival of the messenger bearing the letter from Louis Phillip announcing his accession to the throne of France. We have no doubt that a formal recognition will be made immediately by Nicholas, and forwarded with all speed to Paris.

The Liverpool Markets, *Monday Sept,* 13.

Cotton.—The *Cotton* market has continued in a dull state throughout the last week, and the prices of most kinds are a shade lower. The sales (of which 2000 American have been taken on speculation) amount to 9070 bags, consisting of 4230 Bowed at 6¾d, to 7, 5. 8d. chiefly at 7d, to 7¼d, for middling fair to good fair; 1420 Orleans 6½ to 8d. chiefly at 7d. to 7½; for middling to good fair; 930 Alabama and Mobile 6 1-4d to 7 1-2d.; 110 Sea Island 13d. to 15½d; 100 stained do. 7½ to 9 1-4d.; 580 Pernambuco 8½d. to 9d.; 580 Maranham 8d. to 8 1-4d.; 780 Bahia 8d. to 8 1-4d.; 40 Egyptian 9d. to 9 1-4d.; 60 Demerara 8 1-4d. to 9 1-4d.; 30 Barbadoes 7 1-4d. to 7 3-8d.; 10 West India 7d.; 40 Surinam 8d.; and 160 Surat at 5 3-8d. to 5½d. per lb. The imports are 7503 bags.

Cotton Market, *Monday Evening Sept.* 13.

The demand for Cotton has been very limited on Saturday and to-day, the sales being only about 3000 bags for the two days. Prices have a tendency to decline.

Liverpool Corn Market, *Monday Sept.* 13.

The day being fine, we had less activity in the trade last Tuesday, than at the close of the previous week. The weather has subsequently (with the exception of a day or two) been very unsettled, and this, with the probability of the new Wheats coming to market in soft condition, has caused an active demand for old, and an advance of 2d to 3d per bushel on last Tuesday's prices has been realized. Some further purchases have been made of foreign on Irish account, and two or three large parcels of American Flour have been taken on speculation: for this article an advance of 1s per brl. is now demanded. Little new Grain has yet appeared at market; for a small lot of Wexford, of middling quality, 8s 9d has been obtained: and some superior English has brought 9s 9d per 70 lbs.

Liverpool, 13*th Sept.* 1830.

The import of Cotton in the last week was 2400, and the sales were 9000 bales, including 4200 of Upland, and a decline has been established of ¼d per lb. from the highest point. The market is extremely dull, and the sales to-day are only about 1200 bags.

Tobacco.—Since the 4th inst. upwards of 200 hhds. of Virginia and Kentucky stemmed have been purchased by different manufacturers out of Stock, Virginia at 4d a 4½d, a decline of about 1-8d a 1-4d; Kentucky at 4¼d for mixed middling to 4¾d for very good, and 5d for fine, being steady prices. For Ireland 12 casks (small) of new stemmed at 4¾d and 30 leaf at 2¾d a 3¼d and for exportation about 60 hhds. of low leaf at 2¼d a 2¾d per lb.

The duty has now generally been paid upon our stock of Wheat and Flour in bond. Good wheat is in fair request at 7 a 10 per 70 lbs. and superfine flour 32 a 35 per bbl. both duty paid. We quote flour nominally 30 to 32 per bbl. and Indian Corn in bond at 28 a 30 per quarter. The duty on wheat is 6-8 per quarter, and on flour 4 per bbl. and on Indian Corn 13 10 per quarter. The weather is fine, and the accounts of the harvest most favourable. The London grain market is dull and the prices there declining. We quote Upland Cotton 6 3-8 a 7 3-8; Alabama 6 1-4 a 7 1-4; New Orleans 6 1-2 a 6 3-8.

Prices Current in New York, Oct. 23.

Bees-wax, yellow .20 a 22½. *Cotton*, New Orleans .12 a .14; Upland, .11 a .13; Alabama, .11 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean — — *Flour*, N. York, bbl. —— a 5.12½; Canal 5.25 a 5.50; Balt. Howard st. 5.50 a ——; Rich'd. city mills, 5.75, country, 5.25 a 5.37½; Alexand'a, 5.25 a 5.37½; Fredericksburg 5.12½; Petersburg. 5.25 a ——; Rye Flour, 3.62½ a 3.75; Indian Meal, per bbl. —— a 3 25; per hhd. 14.50 a 15.00. *Grain*, Wheat, North, —— a ——; Vir. .95 a .—; Rye, North, 62 a 63; Corn, Yel. Nor. .62 a 64; Barley, 59 a 60; Oats, South and North, .26 a .34; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.50 a 8 50. *Provisions*, Beef, mess 8.50 a 9.—; prime 5.25 a 5.50; cargo —— a —— Butter, N York, 12½ a 15; shipping, 8 a 10; Lard, .12 a .13; Pork, mess bbl. 15.00 a 16.25; prime 10.50 a 10.75; cargo ——.

Prices Current in Philadelphia, October 27.

Bees-wax, yellow .19 a .21; *Beans*, bushel $.75 a .80; *Beef*, mess 10.00 a 10.50 prime 8 a 9, cargo 7; *Butter*, No. 1, 8 a 8½, No. 2, 6. a 6½; *Cotton*, New Orleans 12½ a .14; Mobile 12 a 13; Tennessee 11½ a 12½, Alabama 11½ a 12½; *Feathers*, South. .35 a .36, West. .35 a —.; *Flax* .6 a .7. *Flour*, sup. 5.12½, fine, 4 87½ a —— Rye 3.50 a —— Corn meal, hds. 13.00 a ——, bls. —— a 3.00; *Flaxseed*, cask 9.50; bu. 1.26 a 1.32; *Grain*, Wheat .95 a .1.00 Rye 51 a 54, Corn l. c. white, 54 a .56, l. c. yellow, 54 a .55, u. c. round, 60 a 61; Oats .28 a 31; Barley, Pa. .60 a .—; do. East. 62 a 64; black-eyed Peas .40 a .50. *Hams*, Jersey 11. a 12½, Virginia 10 a 11, Western 9 a 10. *Hemp*, 215 a 225; *Lard*, .12 a .13; *Oil*, linseed, 85 a —. *Pork*, mess, 14.50 a 15 -, prime 13.00 a 13.50; cargo 11 50 a 12. *Rice*, 3.— a 3.50; *Tobacco*, Kentucky .3¼ a .6, Vir. .3 a .5; *Wool*, common washed lb. .40 a .45, half blood .45 a 50. three quarters blood .50 a 55, full blood 58 a .60; unwashed, generally 10 cents less, according to quality.

SAMUEL SLATER'S
PATENT THRASHING AND FANNING MACHINE.

This highly valuable and improved Machine is now offered to the public for inspection and criticism, at the South West Corner of Callowhill and Juliana streets, near the White Horse Tavern. A model may also be seen at the Agricultural Store of Messrs. Landreth, Chesnut, a few doors below Third street.

Farmers, Planters and Citizens, are particularly invited to call and see the same in operation. The patentee does not pretend to boast of his performance in bringing to perfection that which has been sought after for upwards of twenty years; that is to say, a perfect machine for thrashing all kinds of small grain; also rice. He will leave that for the public to judge, and the machine to rest upon its own merits. It requires but little room, is simple in construction, permanent and durable, and performs beyond conception.

CAUTION.

The public are cautioned against purchasing any machine heretofore patented for thrashing of grain, until they have an opportunity of seeing the above in full operation. It is supposed to be the last patented by the United States Patent Office. The specification was only forwarded on the third day of July last. The patentee has been engaged as agent in vending different thrashing machines for the last seven years, and in accordance with the opinion of scientific men and agriculturists, it is through him brought to complete perfection.

RICE.

The above machine is unquestionably the best and cheapest ever offered to the public for thrashing of rice. Planters would promote their interest by seeing it in operation.

Township, county and state rights; also, single machines, with or without horse power, can be had by applying as above.

The patentee informs the public that attempts may be made by imposing upon them, in offering others: his may be known by his name on the concave in front of the machine.

SAMUEL SLATER,
243 North Third street.
JOHN WEAVER, Agent,
S. W. Corner of Juliana and Callowhill streets.
Philadelphia, Sept. 16.

AGRICULTURAL EDUCATION.

The subscriber, in reference to a publication in a previous paper, contemplates the establishment of an institution where the English language alone will be taught, comprehending all the most useful instruction to be derived from a complete knowledge of it. The more perfect knowledge of history—ancient and modern—with its application to men and things; geography; the practical use of figures in their almost unlimited extent, with the whole round of natural philosophy, will be esteemed a valuable exchange for the study of the dead languages, especially, as even curiosity itself can now be gratified in the reading of translations from all the most important Latin and Greek authors. A professor will be employed whose reputation has been tested by the practical institution of Gen. Van Renselaer, and apparatus furnished for a course of scientific education. As the prevailing motives of the subscriber are to educate an only son under his own eye, and to have afforded him a fair opportunity of demonstrating the advantages this mode of education will possess; he would be unwilling to engage in the undertaking, other than under the expectation of obtaining a permanent class of one dozen boys from 8 to 10 years of age.

The sum of $125 per year will be the charge for board and tuition. Every effort will be made to make the theory and practice, of Agriculture agreeable and interesting to the student, and as far as will be reasonable, a substitute for the ordinary plays and amusements. The natural and moral advantages of this location of country, with the enlightened views and steady habits of its people, makes it every way desirable to the education of youth, and the many institutions in this vicinity will be more or less under the supervision of the Rev. Wm. Meade, who conducts a classical school on the adjoining farm: to whom reference is here made for further information on the subject, or to the subscriber living near the White Post, Frederick county, Virginia. RICHARD K. MEADE.

Lucky Hit Farm, Sept. 24, 1830.

FRUIT TREES.

I have on hand, as usual, a quantity of fine young Fruit Trees for sale, on low terms, such as Cherries, Apricots, Plums, Peaches, Nectarines, Prunes, Pears, Figs, &c. &c. JOHN WILLIS.

Port of Oxford, near Easton, Md. Oct. 26, 1830.

HERBEMONT'S MADEIRA.

This grape should make part of every collection, whether designed for wine or for the table. It does not suffer from *frost* nor *drought*, is very vigorous, and an abundant bearer. Some vines which bore in this City, the present season, had many visiters, and were generally very much admired. Its character as a wine-grape is well known to the public. Mr. Herbemont will dispose of vines and cuttings of this Grape, and cuttings of the Lenoir,* a hardy and excellent wine-grape, delivered here at the following rates, viz:

For vines by the 1000—10 cents each;—500—12½;—100—15;—50—18¾. Cuttings per 1000—25 dollars; 500--$15; 100—$4; 50—$2½.

Orders left with the subscriber before the 15th November will be forwarded; and any information on the subject will be communicated with pleasure.

G. FITZHUGH, Jr.

* These cuttings take very readily.

AGRICULTURAL WAREHOUSE AND SEED-STORE,
No. 36, West Pratt-street, Baltimore.

ON HAND, and constantly manufacturing, a general assortment of AGRICULTURAL IMPLEMENTS, of the best materials and on the latest and most approved plans. The Subscriber's WHEAT FANS are of the latest improvement, and will be warranted to please. His Patented CYLINDRICAL STRAW CUTTERS have never been surpassed in this, or any other country, for durability, facility of cutting, and adaptation to any power and every kind of long forage; and also for cutting rags for making paper. All persons making, vending or using the aforesaid patented improvements without proper authority from the Patentee, must expect to meet the penalty of the law for all such offences. Also on hand, a general assortment of GARDEN SEEDS warranted. J. S. EASTMAN.

3000 WHITE MULBERRY TREES,

In fine condition, and warranted to grow, for sale by the subscriber—price $2 to $8 per hundred, if ordered any time in November. GIDEON B. SMITH.

JENNY WANTED.

Any person having for sale a large well made, barrel bellied Jenny, not over 7 or 8 years old, may hear of a purchaser by applying to the subscriber, at the office of the American Farmer. Letters by mail must be free of postage. GIDEON B. SMITH.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—The market still continues without any essential change in any of its principal articles. Flour, wheat, corn, and rye, are stationary. In oats there is a slight improvement, and cloverseed is lower in consequence of the season of demand having nearly closed. Beef comes in in great abundance, and there is a slight decline in the highest rate.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25 00—St. Domingo, 11.00 a 17.00. The inspections of the week are 432 hhds. Maryland; 37 hhds. Kentucky; and 12 hhds. Ohio; total 481 hhds.

FLOUR—best white wheat family, $5.75 *a* 6.25—super. Howard-street 4.94 *a* 5.00——city mills, 4.62½ *a* 4.75—Susquehanna, ——; CORN MEAL, bbl. 2.25—GRAIN; red wheat, .90 a .95;——white do. 95 *a* 1.00—common red ——CORN, white, .56 *a* .57—yellow .57 *a* .58--RYE, .52 *a* .58——OATS, .29 *a* 30 BEANS, 90 *a* 1.00-PEAS, 50 *a* 60-CLOVER SEED 5.00 *a* 5.50 TIMOTHY, 2.50 *a* 3.00—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, 62½ FLAXSEED 1.10 *a* —COTTON, Va. 9½ *a* 10½-Lou. 11½ *a* 13½ —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 10 *a* 13-WHISKEY, hhds 1st p. .30½ *a* 31; in bbls 31 *a* 32——WOOL, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.50, *a* 6.62½ -No. 2, 5.87½ *a* 6.00—No. 3, 3.62½ *a* 3.75-BACON, hams, Balt. cured 10c.-Feathers, 35 *a* 36--Plaster Paris, cargo price per ton, 4.25 *a* 4.31½ ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.00 *a* 4.25—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—Hickory, $4.50.

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AGRICULTURE.

AN ADDRESS

Delivered in Charleston, before the Agricultural Society of South Carolina, at its Anniversary Meeting, on Tuesday, 18th August, 1830, by James Cuthbert, *a member.*

Mr. President and Gentlemen:

The Anniversary of our Society having arrived, I now appear before you in the performance of the duty assigned me of addressing you. I trust, that even if I disappoint you in not contributing to your edification, I shall, at all events, satisfy you that I have not been unmindful of what I owed the Society, as one of its members, by exerting my best efforts to comply with your wishes.

As addresses have become one of the usages of our Society, it is to be hoped, that from its perpetuity, many opportunities will be afforded to receive useful information in this way. Where a series of addresses, then, are expected to be delivered, each should be confined to a particular subject, which should be treated of in the fullest manner that its nature, or the ability of the writer would admit. In the course of a few years, we should then have embodied a collection of practical facts, more extensive, more satisfactory, and more useful, than could be obtained from ten times the number of addresses, each embracing a multiplicity of topics at once.

With this impression I shall proceed to introduce, at this time, to the consideration of the Society, one of the most important branches of our calling, viz: cattle stock, as a source of manure. On entering on this subject, however, I entertain no little apprehension that I shall fail in affording sufficient interest to engage your attention, and claim your patience; from the circumstance, that many might be disposed to think, as it was one that had already been fully treated of in books which they had read, therefore any thing now said must be stale. The almost innumerable productions which have been published in Europe and in this country on agriculture, and the different branches connected with it, would lead one to suppose that every subject which could come under consideration, had had its full share of investigation. This is almost true with regard to some parts of Europe, and even of the United States. But with respect to our own *State*, our peculiar situation has precluded us from a full participation in the results of those labours which have been so industriously performed for the benefit of other parts of the world. How frequently do we hear it said by some of our planters, whose book information far exceeds their practical knowledge, that this or that plan can very well be carried into execution, at the north and in Europe, but not here, because they have different materials to act upon. And certainly it would appear from the little progress which we have made in the improvements suggested by the distinguished agricultural writers of other countries, that we have not known how to set about them. Were we to examine more closely into the true state of things, we should probably find that the difficulties to which we allude, lie where we are least disposed to look for them; and discover that by proper attention and exertion, we could soon overcome them.

There is probably no subject connected with our pursuits which has claimed so little of the attention of the planters of our state, either theoretically or practically, as that of cattle. They constitute one of those departments, which some from education and habit, are disposed to neglect, and others considering it as requiring too much nicety and regularity of arrangement, condemn as troublesome, expensive, and unnecessary. I am convinced were this subject more seriously considered by planters generally, there would not only be a total revolution in their opinions, but in the agricultural condition of the country. It is not surprising that what has not been regarded as essentially necessary to our prosperity should, in a great measure, be overlooked, and it cannot be denied, that until within a very short period, cattle have had, comparatively, little or no value attached to them in the eyes of the planters, in an agricultural point of view. They have stood in the same relation to plantations that pieces of unenclosed woodland have; to be used from time to time, as the necessities of the plantation required, regardless of waste and destruction. If a planter wanted a beef for the supply of his household, or a steer for the yoke, he would send his negro to hunt one up, uncertain what kind of a one he would find; just as he would order him to look out for a piece of timber, for some immediate plantation job, whilst he was doubtful whether there was any such on his premises.

To estimate fully the value of cattle, it is necessary to study with some attention the various uses to which they might be applied; and to reflect whether these are not likely to be productive of the most permanent and important advantages to us. Cattle properly managed on a plantation, are useful as a source of manure—as contributing greatly to the comfort and support of our slaves—as furnishing under the most favourable circumstances, a most useful class of working animals, and as a source of income.

As the limits of an address would not allow of a satisfactory examination of each of the above enumerated heads, I shall confine my remarks on this occasion, as already proposed, to the first, viz. the importance of cattle as a source of manure. Each of the others might form the subjects of future addresses for those who might choose to turn their attention to them.

I shall here take occasion to remark, that all the data on which my statements shall rest, have been furnished by my own experiments; and this I state with a conviction, that no other motive will be attached to my being thus explicit, than a wish to satisfy the Society that I am not occupying their time, in listening to idle speculations.

It would be altogether unnecessary to attempt to prove to so enlightened a Society as the one I address, the great benefits arising from manure, in increasing the product of the soil. If there are any of the members who have not made the experiment of its utility, I am satisfied there is not one, but from his general information, is fully convinced of it. I am rather inclined to think, however, that there are some who are not satisfied that a system of manuring can be carried on in this country to any great extent, so as to be decidedly beneficial; believing that the expense attending the procuring and applying manure, is more than the profits would justify. Such an opinion is unquestionably erroneous.

If it be once admitted that a system of manuring would be highly useful, and should be universally adopted in the husbandry of our state, there could be no doubt of the great importance that should attach to the source from whence the best and most abundant supply of manure could be obtained. Manures are of various kinds and qualities, and are obtainable under various circumstances, which render their uses available or not. Some are so difficult of transportation as not to admit of being used to any extent but in the immediate neighbourhood of the place where they are to be procured; and others are so doubtful in their operation as not to warrant the risk of a too general use of them. It is universally allowed, however, that animal manure is decidedly the most efficacious known; and that, in the way of compost, it can be employed more extensively, with good effect, than any other. This being the case, if it can be shown that a sufficiency of this manure can be procured more easily than any other, in almost all situations; and this with little or no expense, by means of a well regulated stock of cattle, then the importance of cattle to every planter would be completely established. To insure a full supply of the best compost manure, it is only necessary that every planter should keep a number of cattle in proportion to the quantity of land he intends to cultivate which would require manuring; and these should be treated in a manner best suited to the object in view. A permanent pen should be established, immediately about the settlement, with every conveniency of shelter, where the cattle should be kept more or less the whole year:—a certain number of carts should also be constantly employed for the purpose of hauling in vegetable substances of various descriptions, and carrying out the manure into the fields:—and it would be likewise necessary to keep in reserve, certain situations for furnishing this vegetable matter, which might be woodlands, marshes, and the like.

The proportion of cattle to be kept must depend altogether upon the quantity of manure a given number would yield, and the quantity that would be required to enrich a given extent of ground. It may be necessary to fix upon some quality of land as a standard, which would enable us to point out, in the most satisfactory manner, the advantages of such a mode of procuring manure, and whether it could be compassed with ease by all classes of our planters. We will therefore suppose the quality of the land to be such as to require fifty cart loads of manure to the acre, which would be sufficient, one year with another, for the poorest soil we have. My own observation has satisfied me, that every head of cattle that would be constantly kept up, and properly attended to, with the view of making manure, that is, by being well supplied with water and food, and having its stall regularly littered twice a day, morning and evening, and a little swamp or pond earth occasionally added, ought to furnish, in the course of the year, at least one hundred and fifty cart loads of excellent compost manure, each cart containing from fifteen to twenty bushels. If every head of cattle, then, will supply one hundred and fifty cart loads of manure in the year, each head would be sufficient to manure three acres; this would require about thirty-three to thirty-four head for every hundred acres to be manured, or in this ratio, as the quantity be more or less.

Four carts, carrying from fifteen to twenty bushels of manure, or twenty-five bushels of trash, drawn by two small oxen,* and driven by a boy between twelve and thirteen years of age, would be fully adequate to supply the yard with litter for thirty odd cows, and carry out the manure; even allowing the distance to average half a mile. But it should be distinctly understood, that they should not be employed for any other purposes.

The quantity of woodland, if the wood be thick, or marsh for furnishing vegetable matter, would be one acre, together with the offal of two acres of the field, such as corn-stalks and the like, to each animal. An acre of woodland, consisting of a thick growth of pine, with a considerable undergrowth, will furnish between two and three thousand heaped-up bushel baskets of trash or leaves, in the winter, after the leaves shall have fallen, notwithstanding it had been raked the year previous.

As cattle are easily to be procured every where in the country, or at all events, are easily driven from one place to another—and as there is scarcely a settlement but possesses the advantage of most abundant materials for making compost manure, there can be no doubt but that to insure a sufficient supply of manure, for all purposes on a plantation, must depend alone upon the attention, care and industry of the planter or manager. The farm-yard should always be plentifully supplied with trash, and this should be turned over from time to time, to hasten decomposition. It is also advisable to remove this as soon as it is perceived to be sufficiently incorporated with animal ordure, even if not wanted for immediate use, with a view to stimulate to more active exertions in filling it up again.*

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* See note A.

With regard to the expense of a manuring establishment, any arrangement on a plantation is to be considered an expense only, when it does not make a full return of interest for the amount laid out, and cover all current charges. A necessary stock of cattle then, with suitable arrangements for making manure, ought not to be regarded as an expense, but as much an investment as a rice mill, or even the lands and negroes: for a farm-yard judiciously constructed and managed, would be found to be as important a piece of machinery for making a crop as any that could be erected for preparing it for market, when made: and when its real value was once well understood, would excite equal interest, and receive the same attention.

If a farm-yard, then, with all its necessary appendages be regarded as an investment, it may be proper here to give some estimate of what might be the amount requisite to be appropriated. These would be—1st, the cost of the cattle—2d, the erection of suitable shelters for them—3d, carts for hauling manure—4th, the labour necessary in attending to the establishments, and providing for the cattle.

If we take one hundred acres as the quantity of ground to be manured, from the premises already laid down, thirty-three head of cattle would be required for furnishing the manure that would be wanted; these could be obtained at a reasonable rate, say $10 per head. The thirty-three head would amount to $330.

The necessary shelter, which might be common sheds, need not cost more than $100, even under the most unfavourable circumstances; and when the materials and workmen are on the plantation, it could hardly be said to cost any thing. If a planter chooses to gratify his taste, he might make the expense what he pleases; or when other advantages are united, such as a commodious loft for stowing away perishable fodder, three times that amount would be perfectly justifiable.

The labour, or otherwise, the hands that would be required to attend to, and provide for thirty-three head of cattle, would be one responsible negro man, who should be at the head of the concern, two boys between the years of ten and twelve, and the old and infirm of the gang of negroes. I would say two to every ten head of cattle, these might occasionally be assisted by the invalids, who, though too unwell to do the ordinary work of the plantation might be benefited by the employment proposed. The duties of the former, (the man and the little boys,) should be to feed, water and clean the cattle, litter the stalls and yard, and keep them in proper condition daily; the latter to provide for the cattle—collect trash from the woods and elsewhere—dig up the farm-yard, and free the plantation from weeds and other nuisances. I must not be understood as meaning to say, that one man would be required for every thirty odd head of cattle, for, with any character or capability, one, with due assistance from boys, would be able to superintend an hundred head or more.

The value of the above enumerated slaves would be as follows:—

The fellow as superintendent, -	$400	
Six old infirm hands, $200 each,	1200	
Four boys for carts, $300 each, -	1200	
Two boys employed with fellow, $200 each, - - - - -	400	
		3,200
To this add for the cattle, -	330	
Sheds for the same, - -	100	
Four carts at $35 each, -	150	
		580
		$3,780

I am aware of the effect that the idea of employing a dozen negroes, alone in feeding cattle, or of investing $3,780 in an establishment for making manure, will have upon the generality of our planters, on the first view of the subject. However, let them reflect for a moment, and compare the interest of such an amount, or the hire of the negroes, or the probable value of their labour, with the profits that could seldom fail to arise from such an investment; and let them keep in mind, that a very trifling part of this sum is to be made up out of their incomes, that it is the mere setting apart a comparatively unproductive portion of a capital they already possess, to be more profitably engaged, and they must soon become convinced, not only of the reasonableness, but the excellence of the plan.

To prove the importance of such an appropriation, we must show that there is no way in which this amount could be employed by us, as agriculturists, to the same advantage. The interest on the supposed value of the negroes, $3,200, would be $224. The hire of twelve negroes, such as described, at $30 each per annum, would be liberal, this would give $360. In field work, it would be presumed the five boys would be too young to contribute much, consequently there would be but seven hands employed. Now a crop of thirty barrels of rice, or six bales of cotton, one year with another, to such inferior hands, could not be considered too low a calculation. The amount from the labour of these hands then, at the present prices, would hardly exceed $400. Suppose then that a planter cultivated corn alone, I would ask, if his lands had been long under cultivation, without the aid of manure, what difference he would expect in the yield of two acres, one of which had had fifty cart loads of the best compost manure applied to it, and the other none at all? I would be willing to answer for him, ten bushels at least the first year, and ten added to that the year following, and even ten added to that the succeding one. However, allowing, that twenty bushels, one year with another, would be the difference between manured and unmanured land, what would be the result? A planter cultivating one hundred acres of corn, without manure, realizes, ten bushels to the acre, which gives one thousand bushels as his crop. Another year he manures at the rate of fifty cart loads to the acre, and gets thirty bushels to the acre, which gives him three thousand bushels, as his crop. Now the difference between the two crops, would be two thousand bushels. These two thousand bushels, at the rate of 60 cents per bushel, which is lower than our flint corn has generally sold for, would give $1200. Here, then, would be $800 clear gain over and above the most favourable employment of the hands.

These calculations, of course, apply equally to cotton planters, and sufficiently so to tide swamp planters, to claim their particular attention; for though they might deem it inexpedient to manure their river lands, still it is a great object with them to make a sufficiency of corn, peas, or potatoes for the provisions of their plantations: and certainly, the more they make of either of these crops to the acre, the less quantity of land they need cultivate in them; and all the labour deducted from the corn, &c. would be added to the rice—and this the most efficient labour of the plantation.

The setting apart a distinct class of persons to take charge of a cattle establishment for the purpose of making manure, is essential in order to insure a proper support to the cattle, and a sufficient accumulation of manure in due time—as the cattle are not to be pastured, but constantly kept up, unless turned out for a short time, every day, for exercise, which should be the case, food and water must be carefully provided for them, and given to them at appointed times. A system of manuring also, requires much exactness in the employment of time and labour. The process of making manure, should be going on the whole year, so that a sufficient quantity should always be prepared to be carried out into the fields, before the time for planting arrives. Of this, the ordinary occupation of the plantation would not admit. There would always be conflicting duties, which would eternally embarrass—and it is this which has occasioned the difficulties that planters have experienced in manuring, and been willing to yield to. It is out of the question for any planter, however intelligent or industrious he may be, to manure any thing like the quantity of land he would require for his force of hands, according to the usual mode of conducting plantation business.

The only objections which might be urged to the plan proposed, by those who have never turned their attention particularly to the subject, are, that it would occasion too much trouble, and that a concern of the kind could not be conducted on a plantation by negroes, unless under the constant eye of the master. I will venture to assert, that any planter of the least method, who would try the experiment, would find things to turn out very differently from what he had anticipated. The beginning of the business would be the only troublesome and difficult part. It would soon be carried on with as much attention and success, as any other department. The true secret is, to make it at once a distinct and separate concern, and one worthy of attention. Abandon the abominable practice of penning cattle here, there, and every where, exposed to all kinds of weather, merely to save the trouble of a little additional carting: and convince those who have charge of the cattle, that they are held in some estimation, by the pains taken in providing for them, and an interest would be soon excited throughout the whole plantation, that would insure the best treatment. The idea that negroes are too stupid and unprincipled to conduct matters of this kind, when left to themselves, is a very mistaken one. If we would take more pains to impart to them our views of things, and instead of merely directing, also encourage, and patiently instruct them, they would be found to be very capable of comprehending and executing our wishes. But the misfortune is, that whenever we undertake to introduce any thing new into our system of management, we are apt to be too off-hand in doing it, and the least disappointment discourages.

NOTES.

A.

The following considerations are important as to the carting department, viz: that the oxen should be young when broke, not more than two years old, and small, and the yokes and carts suited to their size. When oxen are broken young, they are better disposed and more active; and when small they are less costly at first, consume less food, and are more managable by boys.

B.

Soiling Cattle.—Soiling cattle has been so unusual a practice in this state, that most planters seem to doubt whether sufficient support could be afforded for a given number throughout the year. The very circumstance, however, of setting apart labour expressly for the maintenance of a stock of cattle, as recommended, would of itself solve all difficulties on this head. It would be just as easy to make an abundance of provisions for a certain number of cattle, as for the negroes on a plantation, if we designed it.

There is no country in the world which affords greater facilities for soiling cattle, than the one we live in. Independent of the plentiful offal which most of our crops yield, nature is so bountiful in her spontaneous productions, which are both palatable and nutritious to animals, that even in cases of serious injury to our crops, we could never be at a loss; and in addition to these, our climate is such, that there is not a month in the year but a continued vegetable production could be carried on. Every labourer set aside, as proposed, for the purpose of providing for the support of the cattle, should be made to cultivate two acres of ground, at least, in some kind of crop. This ground should be laid off immediately about the farm-yard, and should be kept in complete order the whole year. The articles that might be cultivated to advantage, are turnips, carrots, cabbages, oats, corn, peas and potatoes. These might be divided into winter and summer crops. The former to consist of turnips, carrots, cabbages and oats. The latter of corn, peas and potatoes. The successful cultivation of either of these crops would certainly depend, in a great measure on the nature of the soil in which they are planted. Therefore, every planter must determine for himself, according to the character of his soil, of which of these crops he would plant most extensively. Turnips and carrots require proper selections; but with regard to cabbages and oats they will produce exceedingly well in most soils, if carefully prepared. The common drumhead cabbage is an excellent vegetable for the food of cattle; neither skill nor great nicety of culture are requisite in rearing it. And by merely stripping the under leaves, it continues, for a considerable time to afford a reproduction that seems inexhaustible; and when it has progressed to the stage of seeding, the stalks, by being cut up, by a cutting knife, afford as much nourishment, if not more than any other part of the plant. The oats could be cut and fed away in their green state.

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* See note B.

On all rice plantations the immense bulk of rice straw which is necessarily at hand, is sufficient of itself to support a stock of cattle two-thirds of the year, if prudently disposed of. Let the plan of housing cattle be adopted. And let the straw be used only as food, and the planter would be surprised at the quantity of provender which he would have: and there would be no less quantity of manure. The manner in which straw is now used, is certainly the most wasteful imaginable. Not one-third of that which is thrown out to the cattle is consumed by them. For, being repeatedly thrown on the same heap, it soon becomes heated by the moisture arising from the ground and rain, and is so completely mixed up with dung and urine, that the cattle must be half famished before they can be induced to eat of it. It cannot be denied that the main object on these plantations, in relation to the straw, is to get rid of it as speedily as possible. Its least value being that as food for cattle.

The hay made from the salt marshes which range through such an extent of that portion of our country, exclusively adapted to the high-land culture, affords a most excellent substitute for rice straw, and is undoubtedly, of all the spontaneous vegetable growth of our climate, the most valuable as fodder. It is consumed by horses, cattle and sheep with great avidity, and seems to afford more substantial nourishment than hay produced from almost any other species of grass. Connected with its excellence as food, it has this decided advantage, that it may be collected without haste or waste. It can be gathered, of the best quality, from the beginning of May to the first of October, and in case of need, could be used to advantage, even when cut in the winter. It is easily cured. Two days sunning is sufficient. And should it rain when it is spread out, it should be allowed to remain until dry without stirring it about; it is not injured by wet, as either corn blades or common grasses. It should be put into small stacks as soon as it is dried, so that in the event of a continuation of bad weather, if any appearance of heating be perceived, it could be easily pulled down and examined.

All the offals of the fields, such as corn-husks pea and potato vines, and hay, should be collected from the fields, as speedily as possible: after the crops shall have been harvested, and carefully put away, either in stacks or houses, as the conveniences may be, to be distributed to the cattle as wanted. The products of a field used in this way, would support a stock of cattle a very considerable time longer, than when allowed to be consumed in the usual way, by turning the cattle into the field to wander about as they please. The frost soon destroys the flavour of every species of food, and the cattle become indifferent to them; consequently they pass over and trample a quantity without deriving any advantage.

SMUT IN WHEAT.

Mount Prospect, N. C., October 27, 1830.

Mr. Gideon B. Smith:

I observed in a recent No. of the American Farmer, a discovery for preventing smut in wheat, which discovery if it prove a real preventive must prove of great importance, as we are much annoyed with it in this section of country, though we do not make more wheat in these parts than would serve for our own use. It has not been many years since I first heard of the smut in wheat. I am now in my sixtieth year, and in my youthful days knew a neighbour, who made more wheat than any other, to *prefer shrunk grain wheat for seeding.* If his own wheat was full and plump grain, and he knew of any of his neighbours whose wheat was shrunk from having the rust, (which was in those days the almost only evil attending wheat) he would send his good wheat to his neighbour to exchange for shrunk grain wheat, being at the trouble of carrying and fetching, for the advantage, *he said,* of the same measurement sowing more land. I had not made any particular experiment on the subject until last fall—when I washed my wheat and then limed it with boiling water poured on it—it came up very well—and the first I sowed was quite clear of smut, while the latter sowing was very much injured—so that I am almost or quite led to believe that there is more in seeding forward than any thing else, provided the land is put in the right fix. It used to be customary in old times in this section of country, to sow our wheat in the dark nights in September. And at this day it is seldom sown until November or December, and sometimes in January.

Yours, most respectfully, E. L.

HORTICULTURE.

(From the National Gazette.)

THE CURCULIO.

Letter to a Gentleman of Philadelphia.

October 16, 1830.

Dear Sir,—You ask me to describe the insect called *curculio,* and to state to you all that I know of its nature and habits. I ought to be able to give you a very satisfactory account of it, for I was compelled, in self-defence, to examine its history very minutely, on account of its destructiveness to my fruits. If you think that my remarks will be of service to those who intend to make experiments for the extermination of the curculio, you are welcome to publish them.

That my experience may be useful to those who have had no opportunity to consult books, I will discard all superfluous and technical words. In so doing, I shall be certain of being understood by all; but if I confine myself to terms of science, then the unlettered portion of the community will be unable to comprehend much that is necessary for them to know. For instance—if I describe the curculio as a genus belonging to the order coleoptera, having wings beneath crustaceous elytra, which shut together and form a longitudinal suture down the back of the insect—of what use would it be to an uneducated horticulturist? He would never find the curculio by such terms. But if I tell him that it is a dusky, greyish black *bug,* exactly of the size of the *pea-bug,* (an insect which every one, who has ever planted peas, has seen,) then he will at once know what I mean; and I question much whether the philosopher, who generally gets his knowledge of an insect from books, and from a few preserved specimens, will not the more readily detect the curculio from the homelier description of the two.

The pea-bug is one of the many beetles of which naturalists describe nearly one hundred varieties. The curculio, or *fruit bug,* (all insects are usually called bugs,) is like the *pea-bug* in shape, in color, in size, and, with one exception, in its organization. When I speak of colour, I mean taking one summer with another, as the *fruit bug,* or curculio, varies in shades of black, according as the fruits are more or less juicy; whereas the *pea-bug* never changes its colour.

The difference in the organic structure of the two insects, lies in the length of the thorax, or throat, and in the position of the feelers. In the *pea-bug* no throat is visible, the feelers being placed on each side of the mouth, which projects but little beyond the shoulders. In the curculio, or *fruit bug,* the throat, or, as some call it, the proboscis, is nearly half the length of its body. The pincers, or mouth, are at the end of this proboscis, and the feelers are at the extremity, on each side of the pincers. It is these pincers that make these little semi-circular incisions which we so frequently see on the skin of half grown fruit; and the insect is furnished with them both in its grub and its winged state. I have seen the larger beetle (scarabeus) make the same incision on fruit *at night,* and then turn around and deposite its egg in the wound.

The curculio, *in the earlier part of the season,* lays its eggs in the half grown *fruit* of the quince, apple, plum, cherry, nectarine, and apricot trees; but when the fruit begins to ripen, it then lays its eggs loosely in the ground. There are *three* generations of them during the five months of their existence above ground, and they are all very tenacious of life. They can live, confined in a small pill box, or in dry earth, four or five days without food, and in a tumbler filled with moist garden mould, they will live for two weeks. The eggs which are laid in the fruit, hatch in three days; the maggot is then very small, not more than a line in length, but it grows rapidly, and when by the inroads of the maggot the circulation of the fruit is stopped, and it falls to the ground, the maggot is generally half an inch long.

The eggs which the curculio lays in the ground, are of the size of the head of a pin, and are of a dingy white colour. They so much resemble a pebble, that at first I overlooked them; and even now it is with great difficulty that I can distinguish them from the little pebbles which are in the mould. The chrysalis of the curculio is of a peculiar shape; it is in the form of a double cone, the proboscis, feelers and legs lie flat on the under side of the body, which forms the upper cone; the lower half is composed of jointed rings, and tapers down to a point forming the lower cone. The upper half is perfectly quiet, whereas the lower, or ringed part, is in perpetual rotary motion, describing, at its point, a circumference, with each revolution, of half an inch. This rotary movement is for the purpose of hardening and rendering smooth a cavity in which it is to lie for a few days before it leaves its chrysalis state. When the insect first emerges from its shell, it is of a pale brown colour, and is feeble for a few hours, but it is of full size, and will help itself to the juice of fruit, if presented to it, although during the season when it lays its eggs in the fruits, it does not abstract any of the juices for nourishment.

Early in May, at the precise time when the brown beetle makes its appearance, the curculio emerges from the ground and flies to the nearest tree. It is remarkably shy, either crouching closely to the fruit when any one approaches the tree, or else dropping down on the ground, suddenly, with its proboscis and legs drawn close under its body. It will lie in this way for ten or twenty minutes, and will then fly to the nearest limbs of the same or adjoining tree. Five or six of these little insects are sufficient to destroy a bushel of plums or nectarines, for we all know that these fruits rot and wither if they are even slightly punctured.

There is scarcely any thing in which horticulturists are so ignorant, as in this point, of the destruction of fruit. Many sensible men, even now, when so much has been said or written on the subject of the curculio, attribute the knotty and blighted appearance of the quinces and apples, to the late frosts in the spring, and they can never work their minds clear about the different insects that injure trees. I heard a gentleman say not long since—and one, too, who is an excellent orchardist—that the egg plum or magnum bonum, decayed without being punctured by an insect. Now this is not the case. The skin is pierced by the curculio and the egg deposited, but six times out of nine it perishes, the skin heals over and the plum enlarges. The fleshy part within, however, which was injured, is not healed as is the case with the wound on the skin, neither is the rot absorbed, of course mortification ensues, and the fruit drops. I have seen plums of this kind when they were nearly ripe, all at once swell in one little spot without shewing the least scar on the skin, and after turning purple, decay rapidly: and then fall. If the rot be examined accurately, traces of the egg or larva will be seen either on the decayed side, or the one opposite.

Then again, many persons think that the knotty protuberances which girdle and destroy the plum and morello cherry trees are owing to stinted growth or to an exudation of gum; and if you tell them that these knots are caused by the puncture of a very small insect, for the purpose of depositing its eggs in the wound, they will blend this with the curculio, which stings the fruit alone, and with the other insect which pierces the bark of the peach tree near the surface of the ground. It is hopeless, therefore, to set such people right; they must go on to the end of time in this confusion, and the advancement of horticulture must depend on clearer heads than theirs.

It is provoking enough to encounter ignorance of this kind, when it requires so little attention to separate truth from error. But, irritating as this is to those who have loboured for years to instruct others, it is not half so mortifying as to meet with disingenuousness and duplicity. I allude, now, to the habit which many eminent horticultural men acquire of disguising the failure of their crops of fruit. I cannot account for their unwillingness to acknowledge that their grapes are mildewed, or that their fruit is stung by the curculio. I have seen them prevaricate and avail themselves of every little art to deceive, when no possible blame could be attached to them for these disasters. Of all the sins of ignorance or emission, this of inattention or neglect of the study of horticultural detail is the least to be condemned, as vegetable life has not yet attained that rank in our thoughts to which it is entitled. I only mention this to shew that we have much to encounter besides the ravages of an insect. When natural science is more generally appreciated, we may hope for assistance and for a general reform in horticulture.

But to proceed with the curculio. As the fruit bug has wings, and can fly from eight to ten feet at a time, it will readily be conceived that a pavement is no safeguard, excepting under peculiar circumstances. There are two nectarine trees, at this moment, in the rear of the house adjoining the Trinity church-yard in New-York, which stand in a stone pavement laid purposely for the protection of the fruit, and yet the fruit is always stung by the curculio. The gentleman who owned the trees told me, that he never expected to get fruit from these trees, excepting when he covered the limbs with gauze.

From the great tendency of these insects to increase, no hope can arise from fumigation; for unless these were applied *day and night for four entire months,* they would be useless. Neither are their ravages prevented by washes of tar, sulphur, or tobacco water; or by tar or sooty ointment, or by any of the nostrums hitherto recommended.

As to the plan of allowing hogs to run at large among trees, it is even worse than any other thing that has been proposed; for unless the trees are from eight to ten inches in diameter, and the branches grow above the reach of these animals, they will soon disfigure the trees and injure their roots. This is presuming that the trees are enclosed separately in a close five rail fence, apart from shrubbery and garden. But this is seldom the case. Delicate fruit is generally planted near the house, to be within sight, and here hogs would not be allowed to come. In fact, there are very few cases in which the evil could be checked by the assistance of these animals.

Neither could we promise ourselves much benefit from the admission of poultry among the trees, for in their case, as with hogs, unless they are restrained by expensive fences, they will break bound, burrow in the flower and vegetable beds and destroy all the small fruit in the gardens. Besides—I doubt whether they would ever pick up one of the curculios that had fallen from the trees, as it looks so like a little stone, and it is almost as hard as one. If all men owning orchards in the same neighbourhood would, simultaneously, plough their orchards, *daily,* and would turn in from 20 to 50 score of turkeys and fowls, the larvæ of the different insects would, in a few years, be destroyed. But only consider what an expense this would be, and yet nothing short of this will destroy the curculio, in the matter of ploughing and poultry.

In the "Report of the Committee of the New-York Horticultural Society on the proposition of the Pennsylvania Horticultural Society, respecting a premium for destroying insects;" it is there stated and acknowledged, that "the ravages committed by these minute, though powerful foes, will sometimes utterly destroy the produce of a whole season, in other respects the most favourable, and thus occasion the most serious loss to the cultivator." The magnitude of the evil was therefore apparent to the committee, but they doubted the efficiency of the plan proposed by the Pennsylvania Horticultural Society. Undoubtedly it was the purpose of this last mentioned society particularly to draw the attention of all Horticultural Societies to the *one insect,* the curculio, for it was particularly for this object that they proposed a premium. The ravages of other insects are, to the agriculturist serious enough, but these belong to their province. The insects which puncture the bark and roots of fruit and ornamental trees, such as the peach worm (Egesia exitiosa) the insect which produces a black warty excrescence on plum and cherry trees, (called by Mr. Say, the Cryptorhyneus nenuphar) are fast disappearing from every decent man's orchard, for the larva of these insects is stationary, visible and within our reach. They are, however, but as dust in the balance compared to the mischief and ravages of the curculio or fruit bug.

As to the caterpillar, I feel almost ashamed to speak of them in the light of a nuisance to orchardists, because they are the easiest things in the world to destroy. One man an hour before sunrise, or immediately after a shower, will in one week destroy the nests of all the caterpillars, that can be found, in a season propitious to their increase, on eight thousand trees. This I know to be true.

If a single bird, or, as the New York committee express themselves, "an individual of the feathered race," which, they say, "can effect more than what can be accomplished by the utmost stretch of human power," why do not the countless numbers of birds which inhabit the orchards of those farmers who never allow a gun to be heard on their premises,—why do they not, in return for the quiet they enjoy, relieve his trees from caterpillars? The truth is this—birds never, under any emergency, prey upon these horny, hairy, slimy caterpillars. I have known them to abandon their nest, when the tree has been polluted by them, and rather than do this, so strong is their attachment to their offspring, even before they are hatched, they would certainly prefer to destroy these vermin, if it were not so repugnant to their instincts.

Those, therefore, who so strenuously recommend poultry and birds for the extermination of the curculio and caterpillar, talk of what they do not understand. Barn-yard poultry can get at but few of the grubs or larvæ of insects, because their instinct impels them to secrete themselves below the reach of such assaults. In a soft, moist soil, the fowls scratch about and pick up ground worms and such small chrysalids and seeds as lie near the surface; but this does not amount to much, for the field of action is confined to favourable spots, always in broad sunny places,—never under the shade of trees, and when they do go there, it is to retreat from excessive heat. I have carefully watched their operations, and I know that a hen rarely leads her young under trees which are bare of weeds and grass, (as all orchard trees should be) to search for food.

To agriculturists, who generally have but small kitchen gardens, well enclosed by a paling fence, poultry can be very serviceable, for they destroy a great number of grasshoppers, crickets and field butterflies. But to the horticulturists, I say it again, they are *positively* injurious, and indeed useless; for as the horticulturist raises no grain nor grass, he does not fear the ravages of the cricket or grasshopper, insects that only harbour among weeds and grasses. I am as fond of seeing poultry on a farm as any one, and if I consulted my own pleasure, I would never allow a bird to be destroyed; but I am now advocating the extensively beneficial scheme of providing cheap and delicious fruits for the young and the aged, the sick and the poor, as well as to insure profit to the orchardist. How can I accomplish this, unless I can root out ignorant prejudices and false sensibilities?

I have upwards of one hundred cherry-trees of the finest varieties, but I never think of getting any of the fruit, for the birds and the curculio carry off and destroy it all, and in districts where the curculio is never seen, birds devour all the fine cherries. They likewise strike their bills into the ripe peaches, thus making an opening for wasps and ants, who quickly demolish the fruit, which but for the first puncture would have been safe from their attack. Birds are as fond of grapes as of cherries, and if they are not disturbed, they will soon eat up all the early kinds, and gardeners know how difficult it is to prevent them from destroying lettuce seeds and other small seeds. They are very destructive to bees,—the cat-bird, the martin, the blue jay, and king-bird will stand in a convenient place over an apiary, and devour bees by the dozen; and the worst of it is that many of the destructive insects, which might fall a prey to the voracity of birds, only make their appearance at night, when the birds are at rest.

Horticulturists, and, above all, those who have formed themselves into a society for the especial purpose of advancing the interests of horticulture, should direct all their efforts to the destruction of those insects and birds which destroy flowers, vegetables, trees and fruit, and leave it to the agricultural societies to guard their craft from the depredations of those birds and insects which commit such havoc upon the grains, grasses and cattle. These two societies are very distinct in their natures and purposes, but from the want of an exact knowledge of what properly belongs to each one, they are constantly infringing on each other's peculiar pursuits; thus rendering their respective labours more complex. It is from not exactly attending to the definitions of these two terms, —agriculture and horticulture,—that the New York committee have diverged as they did, when the curculio was under discussion. But we must not be deterred, at least, from making the attempt to exterminate this destructive insect, because we are told that there are so many different species of insects which infest our fruit trees, and their modes of attack are so multifarious, that if possibly a preventive could be found which would apply to one race of these destroyers, there would still remain thousands of others equally formidable and destructive.

With the weevil, the Hessian fly, rats and mice, and other grain and grass destroying insects and animals, the committee had nothing to do; it is not their province to meddle with the concerns of the agriculturists; but if their arguments were not contrary to the rules of common sense, the ardour of all those who raise fruit for pleasure or profit would be completely destroyed. Speaking of the insects which are so destructive to whole fields of grain, and to the sugar cane, the committee say, that "the evil has passed away rather by the operation of natural means, such as change of weather, frost, or the like: human efforts having been found unavailing." I can tell that committee that if it had not been for "human efforts," the peach, plum and cherry would no longer be seen in our country. It is entirely owing to the perseverance and skill of a few determined horticulturists, that the insects injurious to those trees were identified and destroyed. They knew better than to trust to the small chance of relief from the silent operations of nature. They cut out the excrescences from the limbs, and the worm from the roots, with their own hands, and thus gave us back those delicious fruits again.—They soon found that the existence of the fruit and tree destroying insect, was not dependent on the vicissitudes of the weather; and as to the other remark of the committee, that "it is only at certain seasons, not of frequent occurrence, that we have to sustain any very serious losses of our fruit by the ravages of insects," this is likewise an error. There is no season when every species of fruit is cut off by natural causes, and, consequently, if only one kind is left, there is enough to raise a stock of curculios for the destruction of thousands of bushels of fruit the next season. The chestnuts at this present moment, in the district to which I belong, are but few in number, and are unfit to eat, owing to the larvæ of the curculio. *At all seasons, therefore,* if the frost has not destroyed the fruits, the fruit bug never fails to puncture the apple, plum, cherry, quince, apricot and nectarine. I never knew them less destructive in one season than in another; but if we only reason from observations which are confined to the boundaries of a city, then we understand why it is that in certain seasons only, the fruit is quite cut off by the curculio. This insect, which a few years ago was entirely unknown to the north of Albany, is now making its appearance there too, and if we search the files of the American Farmer, we will perceive that it has spread far and wide over the United States.

I should not have gone so much in detail, if you had not requested me to do so. I shall now close my remarks with thanks to the Pennsylvania and the Massachusetts Horticultural Societies, for the prompt attention they have given to the subject, and for their liberal donations towards the premium.

GOOSEBERRIES.

Lin. Bot. Garden, Oct. 27, 1830.

Gideon B. Smith, Esq.

The gooseberry is a shrub of easy culture, and when the management of it is rightly understood and regularly attended to, the crop is certain and abundant. It is propagated by layers or cuttings; if in the latter way, the eye or bud at each joint that goes below the ground should be cut out with the exception of the two lower ones, which course will prevent a superabundance of suckers from being thrown up from the roots, and in transplanting the layers, it is best to pursue the same course.

The gooseberry flourishes most in situations where it cannot feel the effects of our intense noonday sun; it will withstand an exposure to cold far better than to heat. It seems to have reached its greatest degree of excellence in Lancashire, in England, and in Scotland, where the air is rarified by the breezes of the ocean, and where the atmosphere may be considered as possessing a considerable degree of humidity. Notwithstanding this fact, many attribute to a too great moisture in the atmosphere the failure of the fruit from mildew, which often attacks the young berries, and which thereby become covered with a dark thick scurf, the effect of which is to arrest their growth and cause their failure. This idea is, however, an error, as I have found, from long experience, and if the undermentioned directions are attended to the fruit will be fair and abundant, and will attain a large size provided the plants are of the best kinds.

The gooseberry plant should be set at least four feet distant, one from the other, so as to allow space to cultivate the ground; and for the branches to extend, and to allow also the advantage of a free circulation of air. In planting, the ground where each plant is to be set, should be dug at least two feet deep, and the holes filled in with a compost of one-third rotten stable or cowyard manure mixed with two-thirds of rich garden mould, or mould taken from a rich soil. The plants should be kept free from suckers, and should be trained near the ground, to a single stem: this mode of training them being found to cause a far greater product in quantity, as well as an increase in size. Every autumn, one-third of the old wood should be regularly trimmed out, by which means a succession of thrifty bearing wood will be kept up, and after this trimming is completed, which should take place in November, from two to four shovels full of rotten manure must be dug in around each plant, according to its size.

I would also recommend, as a remedy for the attacks of mildew on the fruit, the sulphur and lime solution found so successful for grape vines—it can be applied in the same way as for grapes, with a syringe: but I have full confidence that the cultivation above recommended will prevent all mildew and scurf on the fruit.

The cultivated gooseberry is a native of a northern climate, and grows naturally in sheltered situations. Where the summers are very hot, it should therefore be planted in a northern aspect or against a north fence, or in some other situation calculated to afford shelter from the intense heat of noonday. As I have observed that the fruit, when fully exposed to the sun during periods of great heat, becomes often scorched, as if it had been held before a fire.

In this vicinity, where the heat is very great in summer, the situations in which I have seen the gooseberry prosper most, and produce the largest fruit, were beneath peach trees in an orchard in open plantations, with a row of horse beans between each row of plants, and in north borders near a picket fence. Wm. Prince.

AFRICAN SPINAGE.

Dear Sir,—I send you, as matter of curiosity, a specimen of a new vegetable, the African spinage or Basella alba of botanists. The seed was obtained from our late minister to Colombia, Gen. Harrison, who brought it, if I mistake not, from South America; although the plant is a native of Africa. It produces, from each root, several stalks or runners of the length of that I send you, which either lie on the ground, or run upon adjacent props; these stalks, and the leaves, which, as you perceive are succulent and tender, are boiled and eaten as the common spinage, to which they are very similar in taste. This vegetable would seem to be particularly adapted to hot and dry seasons and situations, as a few plants in my garden continued in vigorous growth throughout the dryest portions of the present summer.

Respectfully, &c. C. W. Short.

Lexington, Oct. 16.

[The above specimen resembles somewhat a branch of the tomato vine, well supplied with leaves, in length about eleven feet. We have no doubt this new vegetable will prove an acquisition in our climate. The late dry season produced nothing of more luxuriant growth, and we hope to be able to obtain a small quantity of the seed for distribution in the neighbourhood.] [*Poulson's Adv.*

VENUS' FLY TRAP.

Botanic name, *Dionea Muscipula.*
English name, *Venus' Fly Trap.*
French name, *Attrappe Mouche.*

This strange American flower is one of the greatest wonders of the vegetable world.—There are many plants showing evitable signs of irritability and spontaneous motions, but few that decoy and ensnare insects so completely by acts emulating volition.

This wonderful plant is quite peculiar to America, and even confined to a very small range. It has only been found wild in the swamps of North Carolina, and seldom if ever out of that state. It is much admired and prized in all gardens, being rare, difficult to procure, cultivate and propagate. It must be kept in pots, always moist, and surrounded by moss.

The leaves are radical, wedge shaped, and each has at the end a biloped appendage, surrounded by bristles. It is in those lobes that the power of moving resides. They can expand and shut or fold themselves. A kind of clammy exudation attracts small flies and winged insects, who come to sip it; but no sooner have they tickled the lobes by their feet, than the lobes shut and entangle the flies by their bristles, holding them fast, and never unfolding again until they are dead, and cease to irritate the leaves by their struggles to escape.

The flowers are white, forming a cluster of Corymbus, upon a leafless stem: they have five petals and ten stamina; therefore belong to Decandria, or the 10th class of Linnæus. In a natural arrangement this plant is the type of the family of Dionidia.

It has received the generic name of Dionia, which was one of the ancient names of Venus, and the specific name of Muscipula, means fly-catcher. Only one species is known, and no varieties are afforded. It is therefore an unique wonder.

It may be considered as a true emblem of caution, teaching us to beware of deceitful attractions and the concealed snares of the world.—*Ohio Nat. Rep.*

Encouragement to Cultivators of Fruits.—Mr. Samuel R. Johnson of Charlestown, Mass. has received $51.36, for the produce of a single plum tree in his garden, this season, besides giving away considerable of the fruit to his friends.—The tree produces the Bolmer's Washington Plum, and has yielded but a little short of $50 per annum, for the last three years.—St. Michael pears of the finest appearance, have been sold in our market this week for $1.50 per dozen. [*N. E. Farmer.*

Brooklyn Productions.—We have before stated that the Isabella grapes have been abundant and excellent throughout Brooklyn. We have seen a single Isabella grape from Mr. Leavit's garden which measured two inches and eleven sixteens in circumference, and perfectly round.

Figs have come to good maturity. We have seen a dozen perfectly ripe and very fine from the garden of Mr. Birch.

The Lima Cocoa Nut Squash has grown twenty-two inches in length, in the gardens of J. Seaman and A. Spooner. At maturity they are pronounced good. [*Brooklyn Star.*

Large Cauliflower.—Mr. Otis Pettee of Newton, Mass. exhibited to the Horticultural Society, and afterwards presented to us a *Cauliflower,* which when divested of leaves, weighed 9¾ lbs. It was a delicious vegetable, and much superior in size to any thing of the kind we have ever seen, heard or read of. [*N. E. Farmer.*

Extraordinary Cabbage.—We have been presented with a Cabbage, measuring seven feet six inches in height, which grew in a lot owned by Major William Richardson of this village.—*Harford Rep.*

RURAL ECONOMY.

TO CIDER MAKERS.

If you wish for a delicious liquor, whereon to refresh yourselves after the fatigues of labour—if you wish in a leisure hour to regale yourselves and your friends, on the fruits of your industry—if you wish that the common drink you use to slake your thirst should itself be a highly nutritious food; if you wish your cider in the markets to command a high price and thereby make the surplus of your family use, fill your chest with dollars, make your cider according to the rules of art. Let the first dropping of your apples, unripe, worm-eaten and blasted fruit be eaten by your swine; never gather your apples for cider when wet either with dew or rain, and if the season will permit, not within three days after a rain;—but at all events have your apples perfectly dry on the outside. When gathered put them in a heap under cover, and let them remain until thoroughly mellow, but not till they are rotten or soured; when put into the mill for grinding see that they are clear from sticks, leaves, and every kind of filth:—when you lay up the cheese let no water be put up with it, but wet your straw in the juice of your apples, or what is by some farmers called poma or pomace. Let the must or juice be strained as clear as possible through fine sweet hay. New casks or those which have never had any thing in them but spirits, are to be preferred; but at any rate let the cask be clean. If the cask has before had cider in it, put into it a couple of buckets of water, then bung it up tight, set it in the sun several days with the bung downwards, then shaking the barrel well turn out the water and rinse it as clean as possible, then put in two or three pounds of unslacked lime to which turn a gallon of boiling water, then bung the cask tight and roll it over, so that a white-wash shall adhere to every part of the barrel within—and so let it remain several hours; when you may again rinse your cask, and it will be thoroughly cleansed. (The quantity of lime I have mentioned, is proper for a barrel, but if the cask is larger it will be well to put in more lime.) Into the casks thus cleansed put your cider, and immediately after put them in the coolest place you can find in the cellar, or in constant shade open to the north but closed from the southern air. There the casks may remain until the frost becomes so severe as to endanger their bursting. Cider thus made, cured and prepared, will be preferable in flavor to four fifths of imported wines, and vastly more salutary and nutritious.

SOAP MAKING.

The difficulty of making soap, I am told, is increased as you proceed from north to south, in consequence of the increased quantity of acid contained in the wood. In the summer season, this acid, (carbonic acid gas, perhaps the chemists call it,) abounds so much that the ashes of *green wood* particularly will not make soap at all. The remedy is to mix unslaked lime with a portion of the ashes at the bottom of the leach tub, the acid having a greater affinity for the lime than for the vegetable alkali, is detached from it, and forms a new compound that does not enter into the composition of the soap. If Mr. Smith takes with his new vocation the favour of Mr. Skinner to an old correspondent, he will publish the foregoing in the American Farmer.

COUSIN TABITHA.

Worcester (Mass.) cattle show, took place on the 13th ult. The following is from the Report on Manufactures. A bed-spread made by Miss Caroline Henshaw of Leicester, when *three years of age*, came in close competition with a bed-quilt, made by Mrs. Sarah Dunsmoor of West Bolston, at *the age of* 84. Either of them would do great credit to persons in the meridian of life.

LADIES' DEPARTMENT.

(From the New England Farmer.)

A HINT TO MOTHERS.

When we contemplate what great things depend on what, to a superficial observer, is of small moment, we wish to speak a word of caution. Our subject is that of the common, every day conversation of mothers to their children.

When giving to your children commands, be careful that you speak with a becoming dignity, as if, not only the right, but the wisdom also to command was with you. Be careful not to discover a jealousy that your injunctions may not be attended to, for if the child sees that you have doubts, they will lead the child to doubt too! Be cautious never to give your commands in a loud voice, nor in haste. If you must speak loudly in order to be obeyed, when it is not convenient to raise your voice, you must expect to be disobeyed; and if it be convenient for you to speak loudly, you must remember that it is inconvenient for others to hear it.

But with regard to manner, be careful to speak in a soft, tender, kind, and loving way. Even when you have occasion to rebuke, be careful to do it with manifest kindness. The effects will be incalculably better. When you are obliged to deny the request that your child may make, do not allow yourself to do this with severity. It is enough for our little ones to be denied of what they may think they want, without being nearly knocked down with a sharp voice ringing in their tender ears.

If you practise severity, speak harshly, frequently punish in anger, you will find your children will imbibe your spirit and manners. First, you will find they will treat each other as you treat them; and after they arrive to a little age, they will treat you with unbecoming replies. But if you are wise and treat your little ones with tenderness, you will fix the image of love in their minds, and they will love you and each other, and in their conversation will imitate the conversation which they have heard from the tenderest friend which children have on earth.

(From the Boston Masonic Mirror.)

EXPRESSION.

There are hearts that love the unchangeable dye,
And passionless depth of a calm blue eye;
And worship a brow that is ever serene,
Like the lifeless sky of a painted scene,
Where the sunshine sleeps and the clouds are still,
And motionless gushes the mountain rill;
Such eyes are too steady, too patient, too true—
I love not their sleepy inanimate hue;
But give me the glance with the soul in its rays,
The brow that can frown, and the eye that can blaze;
The smile of that brow is for ever the lightest,
As a flash from a dark cloud is ever the brightest;
For one, my dear girl, is the still bright lake,
That winds cannot ruffle, and storms cannot shake,
The other the foam of the cataract dash—
The darker the water, the brighter the flash.

TO REMOVE WATER SPOTS FROM BLACK CRAPE VEILS.

If a drop of water fall upon black, transparent crape, it immediately turns it white, leaving a disfiguring mark. To remove this, spread the veil on the table, laying smoothly under the stain, a piece of old black silk. Then dip a camel's hair pencil into some good writing ink, and wet the white spot with it. Immediately, (and before the ink has time to dry) wipe it off with an old piece of Canton crape or something of similar soft texture, taking care to rub it crosswise of the crape. This process will cause the water stain entirely to disappear, and unless the ink is allowed to dry before it is wiped off, no mark will be seen on the place.

MISCELLANEOUS.

IMPROVEMENT IN PRINTING.

An ingenious machine has been invented, and may be seen in operation at the printing office of Messrs. Lucas & Deaver, of this city, for inking the type in printing. This operation usually requires either the labor of an additional pressman with balls, or that of a boy with a roller, and the machine now under notice does the work much better than either; and consequently saves the expense of one hand, besides a considerable portion of the ink, which it applies with much more economy than the most skilful hand can do. It is not easy to describe this machine, but we deem it so useful to printers that we have ventured to step aside from our usual vocation to aid in circulating a notice of it. It was invented by an ingenious watch maker of the north by the name of John Prince, and made by R. H. Hoe & Co. of New York. It can be applied to any common press; is worked by the turning of the rounce attached to the press, and costs $125. We saw it in operation, and do not hesitate to say, that it distributed the ink much better than any hand roller or balls we ever saw. The printed sheets exhibited not the slightest variation in color, and were perfectly clear and free from defect; and by turning a small screw the coloring can be regulated to any required shade.

SINGULAR DETECTION OF A THIEF.

The following singular detection of a thief by a pigeon has just occurred:—A notorious thief, named John Tierney, was placed at the bar of the Queen square police office, charged with stealing six fancy pigeons. The prisoner was stopped early on Saturday morning, in Orchard street, by a police sergeant, with six pigeons in his possession. He said he bought them for 9s. Not satisfied with this account from his well known character, the sergeant brought him to the office, where, after undergoing several examinations, he was discharged, and the pigeons given up to him, no owner being forthcoming to claim them. Cooper, an officer of the establishment, being somewhat of a judge of pigeons, and aware that no one in the *fancy* would sell pigeons at so low a rate, purchased them of the prisoner after he was discharged, for 6s., determined, if possible, to find out the owner. He accordingly selected a fine bald-headed pigeon out of the lot, and fastened a note to his foot, which ran as follows: "Sir—If you will bring this note to my house, No. 10, Rochester-row, Westminster, you will find I have five of the bearer's messmates in durance vile, who have, I believe, been taken prisoners unlawfully."—The pigeon was thrown up, and flew, as the sequel will show, to his own home, and in consequence the prisoner was a second time taken into custody. On the prisoner being placed at the bar, Mr. Bessey, a gentleman residing in the Wandsworth road, stated that his pigeon house had been broken open and robbed of his pigeons the night the prisoner was stopped. His hen roost had also been robbed of several fancy fowls; and the thieves had broken into his safe and stole a loin of veal, a loaf of bread, some pork, and butter. He saw the pigeon, to his great surprise, come home and go into his old quarters, and at night took him from his roost and put him in a small wicker basket. The next morning he was astonished to find a note in the basket attached to the bird, desiring him to call at Rochester-row. The prisoner said that he had bought the pigeons. Mr. Marriott fined him, under an old Act of Parliament, £10, for having the pigeons in his possession. In default of payment he was committed for four months to the House of Correction. Mr. Bessey said he did not intend to keep any more pigeons, and ordered Cooper to keep them for his sagacity in discovering the thief, and left the office highly delighted at the singular manner in which it has been effected.

[*English Paper.*

THE FARMER.

Baltimore, Friday, Nov. 5, 1830.

Domestic Blankets.—We were highly gratified, a day or two since, with an examination of a pair of blankets, made by the Society at Economy, Pa. under the superintendence of Mr. Rapp. They are made of the finest Merino wool, very thick, and of a very excellent texture—far superior in all these particulars, and every other in which comfort and durability are involved, to any of the imported article we ever saw of the same price. They may be seen at the store of Mr. Peter Fahnestock, No. 4, Light street wharf, where orders are received for them. Besides securing a very superior article, agriculturists will subserve their own interests, in obtaining these blankets, by patronizing a domestic market for wool, a consideration worthy of attention in these days of depression in the wool raising business. We do not hesitate to say, that, if blankets of such quality can be made at such prices in this country, the importation of the foreign article will soon cease—in which event the raising of wool will again become an object worthy of attention.

Prolific Corn.—We have in the office of the American Farmer, a stalk containing *five* well filled ears of corn, which grew on the farm of Charles Bohn, Esq. near this city. It is of the white early kind, and every ear completely filled, even to the tip end of the cob. We do not learn that this was the result of any peculiar management or selection of seed.

Flowers.—The season has been remarkably favourable for late fall flowers, there having been no frost sufficient to injure them. We never saw the dahlias and chrysanthemums in higher perfection than at this time. Those who are fond of flowers, will have a rich treat, on paying a visit to Feast's, Bohn's, Wilks' or Bastian's gardens.

Prince's Treatise on the Vine.—This excellent work, a review of which (written by a respectable gentleman of Virginia,) appeared in the Farmer, No. 32, vol. 12, ought to be in the hand of all gardeners and vignerons. Our Virginian correspondent, who is a cultivator of the vine, has saved us the trouble of a detailed notice of it; and the many extracts heretofore made from the sheets, with which we were politely favoured by the author, while in the course of publication, will have enabled our readers to judge of its merits from the text, but still we deem it proper to urge upon cultivators and amateurs the great advantage to be derived from the possessing the work. A few copies have been sent to us for sale—price $1.50.

Allegany Tobacco.—We have a few most beautiful samples of red and yellow tobacco, raised by James Cunningham, Esq. on his farm, in Allegany county. The texture of this tobacco is very superior, notwithstanding the severe drought of the season, which was very unfavourable to it, and in consequence of which, Mr. Cunningham thinks the samples are not a fair specimen of the tobacco of that part of the state. Good judges pronounce the samples excellent; but Mr. Cunningham thinks he will be able to do much better another season, particularly in giving it a brighter colour, in which, however, this is by no means deficient. The prices of these samples are, red, $12—yellow, $15 per hundred.

A letter from a most respectable citizen of Liverpool to another in this city, furnishes the following interesting information relative to the Liverpool and Manchester Rail road. It is but a comparatively short time since the stock in this Company was sold at a rate much under the par value—it now commands an advance of one hundred per cent.—*Amer.*

Liverpool, *Sept.* 23, 1830.

We went yesterday morning to Manchester at 7 o'clock, and returned at 4 o'clock in the afternoon. We occupied about four hours and twenty minutes in going and returning; our speed was varied, depending upon the firmness of the Road, at all rates up to twenty-two to twenty-five miles per hour. The Company's orders are that the journey shall be performed in two hours and a quarter—the quarter is allowed for watering, taking up and setting down passengers. The hours of departure, both from this and Manchester, are 7, 12 and 4 o'clock; four carriages attached to one engine depart at each trip with 120 passengers. The charge is seven shillings for each; the receipts are consequently £252 per day, or £1764 per week. The stock is selling to-day at £200 per share for £100 paid in."

Latest Foreign News.

By several arrivals at New-York, we have intelligence from England to the 2d of October, which is so important, that we shall be excused for occupying an unusual portion of our columns with it. It seems now inevitable that the flame which first burst forth at Paris will involve all Europe in a general conflagration. The revolutionary movements in the Netherlands had assumed an imposing character and bade fair to result in the triumph of the people.

There has been a six days irregular battle in Brussels, at times raging furiously, and ending by the withdrawal of the King's troops, after much bloodshed on both sides, and a vast destruction of property. The troops were withdrawn on the 27th of Sept.—taking up a position at Dieghem, but with a view, probably, of falling back upon Antwerp. The accounts of the different parties are somewhat variant; the insurgents claim to have *compelled* the retreat: on the other hand, however, it is maintained, that, "unable to obtain possession of the town by any other means than a bombardment, which would have caused the destruction of that property which it was the professed object of the troops to preserve from threatened pillage by the populace, and the sacrifice of loyal as well as disloyal subjects, Prince Frederick took the only course which was left to him consistently with honor, and the desire to prevent the unnecessary effusion of blood, and withdrew his army to a distance of two leagues from the capital, there to await the decision of the government as to future operations."

The last account from Brussels was, that the troops have been completely beaten in three several attacks upon Brussels, and were even attacked in turn outside the walls by the Bourgeois. Every account gives the slaughter as immense; that one of the King's Aides-de-Camp had been killed, and Prince Frederick wounded in one of the affrays.

Revolution in Saxony.

The riots at Leipsic have been followed by disturbances of the most serious character in Dresden, the capital. The Sovereign of Saxony, Maximilian, took it into his head lately to abjure the faith of which his family had been such gallant and zealous defenders, and to turn Roman Catholic; and not content with his own conversion, he must needs prevail on his people to be converted also. Such conduct, in the year 1830, is more deserving of pity than of censure. The people of Leipsic spurned the foolish and impudent attempt to deprive them of the noblest liberty that men can own; but the inhabitants of Dresden, it seems, were not content with repelling the efforts of the royal bigot, and the Burgher guards attacked the military, and drove them out of town. The hotel of the first minister, against whom the excitement was very strong, was burnt to the ground in the struggle. These events took place on the 9th and 10th of September. The 12th was a memorable day for Saxony. The Command Guard was by that time generally organized, and comprised the most distinguished inhabitants in its ranks. The artillery, who were on good terms with the inhabitants, occupied only the guard-houses at two of the gates; all the other posts were in the occupation of the citizens, part of whom were obliged to be under arms during the night, and be ready to muster at the first signal. Several of the persons wounded on the 9th have died; but none of the wounded officers were dead. On the 13th,

"M. de Gablentz, commandant of the National Guards, published a proclamation, in which the king of Saxony announces that prince Frederick, is appointed co-regent, and that prince Maximilian, father of prince Frederick, has renounced his rights of succession to the crown, in favour of the latter. This proclamation, accompanied with the dismissal of count Einsiede, the prime minister, was received with enthusiasm by the people of Dresden; and on the 14th, the king made his entry into the town, accompanied by the new regent, amidst enthusiastic acclamations. Prince Frederick is the representative of all the enlightened ideas of the country. Known as the friend of all the reform claimed by the majority of the Saxons, his appointment to the regency, which is a real accession to a throne occupied by an old man seventy-five years of age, is a sure pledge that numerous reforms will be successively introduced into the political and administrative system of Saxony.

The following extract of a letter from Hesse Casel, dated September 16, deserves attention.

"We are here in a very turbulent state. Every where revolutions and disturbances are breaking out. A few days since, our prince, and his son, returned from Carlesbad. His reception was unfavourable. A body of our citizens are gone to his residence at Wilhomshohe, to present a petition, signed by 2,000 inhabitants, for a constitution.

Defection of the Troops at Ostend.

The following is a summary of the latest intelligence from Ostend:—

On Sunday night, (Sept. 26th,) a serious disturbance took place at Ostend, in consequence of a tumultuous assemblage of the Bourgeois, who insisted upon hoisting the Brabant flag: the troops were called out, but felt more disposed to assist, than quel the rioters, and great acts of insubordination were the consequence. The mob increased every instant, and to a most alarming extent, when the soldiers were directed to fire—they did so, but it was in the air; and only a casualty or two occurred; for had the shots been directed against the populace, the slaughter would have been immense. An attempt was afterwards made to seize the arms of the military, who were tame enough to submit—but they were subsequently relinquished. Things continued in the most feverish state until last night, when the Brabant flag was hoisted without opposition.

France. The commission in the House of Deputies, charged with the inquiry into the acts of the late ministry, had made a report, which concludes with a resolution to impeach them before the House of Peers, on a charge of treason, which had been adopted with great unanimity.

Besides the above noticed revolutionary movements, similar events had occurred at Ghent and Berlin; and Dresden, Leipsic, Hamburg, &c. are in a state of insurrection.

Havre, *September* 27.

We have received but 220 bales Cotton; the sales have been 3319 bales, viz. Louisiana 88f. a 102f. 50c.; Tennessee, 85f. a 86f. 50c.; Mobile, 88f. a 92f.; Georgia, 86f. a 92f.; middling qualities are 1f. lower; there is a steady demand for ordinary. Sugars continue calm. In Coffee very little is doing. In Hides there are many transactions, particularly by auction. Indigo, but little is doing now, as 599 cases Calcutta is advertised for auction, October 19th. Tea, several sales are spoken of, among them 100 chests and 200 half chests, Gunpowder at 1f. 10 a 4f. 15; 100 chests Souchong at 1f. 40. Pot and Pearl Ashes, no sales, prices nominally the same. Flour, the Formosa brought 2000 brls; 150 brls. have been retailed at 39f. per brl. and 350 brls. have been taken for export to the Colonies at 36f.; there are further buyers at 35f. a 36., but holders pretend to obtain more; the stock is more than 6000 barrels. The sales of Grain in the surrounding markets continue moderate.

Sales Sept. 27.—65 bales Louisiana Cotton at 90f. a 95f. 388 bales Georgia, at 90f.

Liverpool, *Oct.* 2.

The sales of Cotton this week have been on a large scale, and reach 24,500 bales, including, 220 Sea Island, a 13 a 15½; 100 stained, 6½ a 10; 8660 Upland, 6½ a 7½; 2660 Orleans, 6¾ a 8¼; 5420 Alabama, 6¼ a 7½. In the early part of the week the demand was particularly brisk, and an advance of 1-8d, per lb. was readily acceded to by purchasers, but for the last two days the market has been comparatively languid, and the above noticed advance is less easily obtained; there is no change in S. Islands, and buyers are looking for parcels at 12½ a 13d. About 1000 bales have been taken on speculation during the week, and the import in same period is 16,200 bales; since the 1st January it is 675,400, against 695,600 to this period last year; the increase from the United States being 110,000 bales. Rice, 165 tes. sold at 15s 6d per cwt.—Q. Bark, 20 hhds. Philadelphia, at 11s 6d per cwt.—There continues to be a fair business doing in wheat, at the advance noticed, and about 10,000 bls. flour, sold at 36s a 38s per brl., and some sales at 39s per brl.; about 1200 qrs. of Indian corn sold at 43s a 45s. per 480 lbs. duty paid. The sales for tobacco for the past month are 1081 hhds. say 514 of Virginia leaf, 443 stemmed, 23 Kentucky leaf, and 99 stemmed; our stock is 6117 against 7358 at this period last year. Indian corn 43s a 45s.

Average of wheat for week, 60s 8d; do. 6 weeks, 65s 3d; duty, 21s 8d. On flour 13s ½d.

Prices Current in New York, Oct 30.

Bees-wax, yellow .20 a 22½. *Cotton*, New Orleans .12 a .14; Upland, .11 a .13; Alabama, .11 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean —— *Flour*, N. York, bbl. 5.12½ a 5.19; Canal 5.19 a 5.37½; Balt. Howard st. 5.50 a ——; Rich'd. city mills, 5.75, country, 5.25 a ——; Alexand'a, 5.25 a 5.37½; Fredericksburg 5.12½; Petersburg, 5.25 a ——; Rye Flour, 3.62½ a 3.75; Indian Meal, per bbl. —— a 3 25; per hhd. 14.50 a 15.00. *Grain*, Wheat, North, —— a ——; Vir. .95 a 1.00; Rye, North, 62 a 63; Corn, Yel. Nor. .60 a 63; Barley, — a 60; Oats, South and North, .26 a .35; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.50 a 8 50. *Provisions*, Beef, mess 8.00 a 8.50; prime 5.00 a 5.25; cargo 4.00 a —— Butter, N. York, 12½ a 15; shipping, 8 a 10; Lard, .10 a .12; Pork, mess bbl. 14.00 a 16.25; prime 10.00 a 11.00; cargo ——.

Prices Current in Philadelphia, October 30.

Bees-wax, yellow .21 a .22; *Beans*, bushel .75 a .80. *Beef*, mess 10.00 a 10.50, prime 8 a 9, cargo 7; *Butter*, No. 1, 8 a 6½, No. 2, 6. a 6¼; *Cotton*, New Orleans 12½ a .14; Mobile 12 a 13; Tennessee 11½ a 12½, Alabama 11½ a 12½; *Feathers*, South. .35 a .36, West. .34 a .35; *Flax* .6 a .7. *Flour*, sup. 5.06¼, fine, 4.87½ a —— Rye 3.50 a —— Corn meal, hds. 13.00 a ——, bls. —— a 3.00; *Flaxseed*, cask ——; bu. 1.30 a 1.35; *Grain*, Wheat .90 a .95 Rye 51 a 54, Corn l. c. white, 54 a .55, l. c. yellow, 54 a .56, u. c. round, 58 a 60; Oats .28 a .31; Barley, Pa. .60 a .—; do. East. 62 a 64; black-eyed Peas .40 a .50. *Hams*, Jersey 11. a 12½, Virginia 10 a 11, Western .10 a 10½. *Hemp*, 215 a 225; *Lard*, .11 a .12; *Oil*, linseed, 83 a 85. *Pork*, mess, 14.50 a 15, prime 13. a 13.50; cargo 11.50 a 12. *Rice*, 3.— a 3.50; *Tobacco*, Kentucky .3½ a .6, Vir. .3 a .5; *Wool*, common washed lb. .40 a .45, half blood .45 a 50. three quarters blood .50 a 55, full blood 58 a .60; unwashed, generally 10 cents less, according to quality.

Prices Current in Charleston, Oct. 25.

Cotton, Sea-Island, .21 a .25. Stained .10 a 15. Santee, .20 a 23. Main, .20 a 23. Upland, inferior and common — a —, fair to good, .— a ——, prime to choice, .—— a .——. *Rice*, prime, $2.87½ a 3.00, inferior to good, do. $2.50 a .2.75. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $6 a —. *Corn* .63 a .65. *Oats* 32 a .38; Peas, 55 a 60. *Hay*, prime Northern, .85 a ——— *Whiskey*, Philadelphia and Baltimore, hhds. .34 a .—; bbls. 36 a 37; New Orleans, old .37½ a —. *Tobacco*, Kentucky, Georgia, &c. .4½ a .6½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .20; Tallow, Carolina, 7 a 7½. *Beef*, Boston, No. 1, .— a .9, Mess, 10½ a 11; New York Mess, .9 a .10, Prime. .6½ a .6¾; Cargo, .5½, nominal. *Pork*, Mess. .14 a 15; Prime, .11½ a .——. *Bacon*, .6 a. 7½ cents; hams, .10 a 12; Lard, 13 a 14. *Butter*, Goshen, .18; inferior 8 a 12½.

FRUIT TREES, &c.

WILLIAM PRINCE & SONS have large quantities of the following trees for sale at their Nurseries at Flushing, near New York.

Spanish Chestnut, or Maron de Lyon, 6 to 7 feet in height.

Persian Walnut or Madeira nut, 6 feet.

Sweet soft shell Almonds, 7 feet.

Figs of 50 varieties, *of bearing size.*

Olives of the finest French and Italian varieties.

Spanish and English Filberts of fair size.

Mulberries, 10 of the choicest kinds suitable for silkworms, including the famous Tartarian, which endures the coldest climates.

Illinois or Pecannuts, 7 to 8 feet.

Quinces, 10 of the finest kinds, some of which are of bearing size.

Pomegranates of 12 fine varieties, several of which produce fruit at Long Island.

Oranges, Lemons, Citrons and Limes of above 50 varieties, and mostly at $2 to $3½ each, and a few very rare kinds at $5.

Camellias of near 60 varieties, many of which at only $2 to $3.50 each, as per new Greenhouse Catalogue.

The set of Chinese Magnolias comprising the Purpurea, Conspicua, Fuscata and Annonæfolia for $6, and the Gracilis included for $11, all fine plants.

The set of splendid Chinese Pæonies, comprising the Moutan or Tree Pæony, the Whitleyi, Humei, and Fragrans for $10, all fine plants.

Grape vines of the finest Burgundy, Champagne, Rhenish and Tokay varieties at $25 per 100.

2000 genuine Scuppernon Grapevines.
10,000 Isabella of 1, 2 and 3 years growth.
2000 Catawba, strong, 2 years' growth.
2000 York Madeira, }
1000 York Claret, } 2 years growth.
500 York Lisbon, }
2000 Alexander or Schuylkill, 2 years old.

Silver leafed Abele, of large size, one of most elegant ornamental trees, now coming into general notice, for planting in yards, lawns, avenues, &c.

Also all the other varieties of trees, shrubs and herbaceous plants, greenhouse plants, bulbous flowers, &c. as per catalogue.
GIDEON B. SMITH, *Agent.*
Office American Farmer.

PATENT STRAW CUTTERS AND PLOUGHS.

The Subscriber has on hand, a good supply of his Patent Cylindrical Straw Cutters, which are adapted to the cutting of all kinds of long forage, straight or tangled, and for their simplicity, durability and efficiency, he believes they have never been surpassed, he has sold between three and four hundred of them, and he believes they have given universal satisfaction.

He also keeps himself constantly supplied with Gideon Davis's highly improved Ploughs, in all their variety; and the castings to supply the place of those worn out, together with other implements of husbandry, as heretofore.

Likewise on hand, Herds and Orchard grass Seeds, and a general assortment of the Messrs. Landreth's Garden seeds.

Orders received for Fruit and Ornamental Trees, Bulbous roots, Flowers, &c. &c.
JONATHAN S. EASTMAN,
West Pratt-street, between Hanover & Charles.

BULBOUS FLOWER ROOTS.

Just received from the garden of Wm. Prince & Sons, at Flushing, an assortment of bulbous flower roots, consisting of Tulips, Hyacinths, and Crown Imperials, of assorted and finest kinds, for sale by
GIDEON B. SMITH,
Farmer Office.

BALTIMORE PRICES CURRENT.

Baltimore Market.—There is a considerable improvement in flour and grain, though we are unable to give precise quotations of the former, the store prices being quite unsettled. Our rates for flour may therefore be considered nominal, though we do not think them more than 6 to 12 cents wide of the mark either way; and we think we are just as likely to be under as over. The wagon price of Howard street yesterday morning, was about $5.06, but quite unsettled. Wheat has been sold at our quotations, which may be considered fair rates. Beef is quite plenty but without variation in price.

Tobacco.—Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 441 hhds. Maryland; and 9 hhds. Ohio; total 450 hhds.

Flour—best white wheat family, $5.75 *a* 6.25—super. Howard-street 5.12½ *a* 5.18¾——city mills, 5.00 *a* ———Susquehanna, ——; Corn Meal, bbl. 2.25 —Grain; red wheat, 1.00; ——white do. 1 05 *a* 1.07—common red ——Corn, white, .56 *a* .57—yellow .57 *a* .58—Rye, .52 *a* .53——Oats, .29 *a* 30 Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 5.25 *a* 5.75 Timothy, 2.25 *a* 2.75—Orchard Grass, 1.25 *a* 1.50—Herd's, — *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½ Flaxseed —— *a* —Cotton, Va. 9½ *a* 10½—Lou. 11½ *a* 13½—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½—Upland 10 *a* 13-Whiskey, hhds 1st p. .30 *a* —; in bbls 31 *a* 32——Wool, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings; Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.50, *a* ———No. 2, —— *a* 6.00--No. 3, 3.62½ *a* 3.75-Bacon, hams, Balt. cured 10c.-Feathers, 34 *a* 35--Plaster Paris, cargo price per ton, 4.25 *a* 4.31¼ ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 3.50 *a* 4.25—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—Hickory, $4.50.

EDITED BY GIDEON B. SMITH.

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TERMS.

1. Price five dollars per annum, due at the commencement of each year of subscription.
2. Subscriptions are in all cases charged *by the year*, and never for a shorter term.
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4. The risk of mail in the transportation of both the paper, and of United States bank notes sent in payment for it, is assumed by the publishers.
5. Advertisements connected with any of the subjects of the American Farmer, inserted *once*, (never more) at one dollar per square.
6. All letters concerning this paper must be directed to the publishers. They must be free of postage, except communications intended for publication, and letters transmitting money for *future* (not past nor current) volumes.

Printed by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the Western Tiller.)

From the Western Agriculturist, a work which is now in press and will shortly be published, by Robinson & Fairbank, of Cincinnati, Ohio.

FENCES.

After the pruning which the plants receive at the time of the removal from the nursery, they should not be touched with the knife for the next two or three years. The common practice of cutting off the top annually, in order to render the hedge thicker, should not be followed, the effect produced being the reverse of that desired. Shortening the main stem of a plant, makes it throw out a number of small stems at the place where it was cut. From the frequent crops of young shoots sent out by the tops after each clipping, and the nourishment necessary to support them, the lateral shoots at the bottom, upon which depend the strength and value of the hedge, are greatly stinted in their growth, and but too frequently die: hence the hedge becomes thin near the ground, and its usefulness, as a fence, thereby destroyed.

Until the hedge has risen to the height of five or six feet, the main stems should be left untouched, and the pruning be confined to the side branches, suffering those near the roots to remain pretty long, and gradually tapering towards the top. When a hedge has attained the proper height, the extremities of the main stems may be cut off, and then nothing more will be required than such trimmings as will preserve it broad at the bottom and gradually tapering to the top. Where gaps occur in a hedge, or any of the plants become stinted and weakly, they should be removed, and the openings immediately filled with strong thrifty plants from the nursery. This is the only efficient mode of keeping up a hedge.

The most common disease to which hedge-plants are liable, is that of being covered with moss. This malady is the result of a cold, wet, clayey soil. The use of lime around the roots will effectually eradicate the moss. The remedy is certain and cheap.

The instructions laid down by Cobbett, in his American Gardiner, for the planting and rearing a hedge, are minute, and in some particulars variant from the foregoing. The following is a condensed view of his mode of proceeding in making hedges.

The ground being prepared, take up your quick set plants, prune their roots to within four inches of the part that was at the top of the ground; or in other words, leave the root four inches long, taking care to cut away all the fibres, for they always die; and they do harm if left. Make the ground very fine in which the plants are to be placed: stretch a line over it, take the spade, put the edge of it against the line; drive it down eight or ten inches; pull the eye of the spade towards you, and thus you make all along a little open cut to receive the roots of the plants, which you will then place into the cut, very upright, and then put in the earth against them with your hand, taking care not to plant them deeper in the ground than they stood in the nursery. The distance between each plant is twelve inches. When this line is done, plant another line all the way along side of it, and at six inches from it, in exactly the same manner; but in this second line the plants are not to stand opposite the plants in the first line, but opposite to the middle of the intervals. When both lines are planted, tread gently between them and also on the outsides of them, and then hoe the ground a little. This work should be done the first week in October, even although the leaves should still be on the plants. For, their roots will strike in this fine month, and the plants will be ready to start off in a vigorous manner in the spring. If it cannot be done in the fall, the earlier it is done in the spring, the better. Whether planted in the fall or in the spring, the plants must be cut down close to the ground. If they are planted in the fall, cut them down in the spring as soon as the frost is out of the ground, and before the buds begin to swell. If they are planted in the spring, cut them down as soon as the operation of planting is completed. This cutting down within half an inch of the ground, will cause the plants to send out shoots that will, in good ground, mount up to the length of three or four feet during the first summer. After the plants have stood two summers and three winters, again cut them all down close to the ground in the spring, and the shoots will come out so thick and strong, that they will not again require cutting down. This year you must begin to clip. About the middle of July, clip off the top of the hedge a little, and the sides near the top, leaving the bottom not much clipped, so that the side of the hedge may slope like the side of a pyramid. The hedge will shoot again immediately, and will have shoots six inches long by October. Before winter you must clip them again, leaving some part of the new shoots, that is to say, not cutting down your last cut, but keeping the sides always in a pyramidal slope. A hedge may thus be got five feet high in six years from the time of planting.

In *England*, the plant in most common use for making hedges, is the white thorn. They are propagated by sowing the haws in drills like peas, where they usually remain until they are taken up to be planted in the hedge. The white thorn is not a native of this country, but will grow here as rapidly as it does in England. The haws of this plant may be had at Liverpool or London in the months of November and December, preserved in sand or barrels. The cost is not more than two dollars a barrel, and three barrels would be sufficient to hedge a common sized farm. Many other plants are also used in that country, such as the holly, the larch, the alder, and the beech, which latter is found to answer remarkably well in cold, wet, clayey soils.

Experiments in different parts of the United States within the last thirty years, have established the fact, that we have a variety of plants well adapted to all the purposes of hedging. Among these may be enumerated several varieties of the American thorn, the cedar, the holly, the crab, the honey-locust, the beech, the willow, the hemlock, and the black locust. Among the more valuable of these may be named the cedar, several varieties of thorn, the honey-locust, the hemlock, and the crab, all of which may be propagated from the seed.

The mode of raising the "American" thorn, one of the varieties of the common haw thorn, as practised most successfully, by Mr. Thomas Main, of the District of Columbia, is the following: The seed are to be carefully extricated from the berries, by moderate pounding with a wooden pestle, after which the stones are to be washed perfectly clean from the pumice, by rubbing them with the hand in water. They should then be placed in a deep box, loosely made, and perforated at the bottom with holes, to permit the water to escape. This box should then be covered with oak leaves or moss, and placed out of doors in some secure but bleak cold situation, and protected from mice and ground squirrels. No earth need be mixed with the seed, nor is it material how often the seed are frozen. On the approach of spring, the seed are to be inspected every two or three days, and so soon as they begin to feel slimy, it indicates that the shells of the stones are about to open. As early as the weather will permit, a bed of free, rich, deep, black loam, rather inclined to moisture than dryness, and situate rather at the bottom than the top of a height, is to be prepared. It should be carefully dug to the depth of twelve or fifteen inches. So soon as the small point of the rootlet of some of the seed becomes visible, the seed are to be sown, in beds about four feet wide separated by alleys fifteen or eighteen inches in width. The seed ought to be rolled in plaister of Paris at the time of sowing, and scattered about an inch apart,—half an inch of fine mould is sufficient for the covering. If the weather is favorable, the young plants will appear in a few days. The whole process may be summed up in a few words;—clear the stones well from the pumice of the berries, keep them damp through winter, and at the proper time in the spring, place them in beds well prepared.

For the purpose of raising a nursery of cedar plants, let the berries be gathered in November and December, and having rubbed off, as far as practicable, the resinous substance in which the seeds are enveloped, mix them with unslaked ashes, in which let them remain for two weeks, then plant them in drills after the manner of planting peas, and they will vegetate and come up the following spring. If well nursed they will be ready for removal into a hedge in about two years. The trenches into which they are to be placed, should be prepared with light rich earth. The first of March is the proper time for planting them. When the plants have attained the height of three feet, the trimming should be commenced, and the best time for this operation is the middle of summer. A hedge of great beauty, strength and durability, may thus be formed in about seven years from the time of planting. It should be borne in mind that the more thoroughly the seeds are cleaned, and the earlier the plants are removed in the spring, the better. Col. John Taylor, of Virginia, the author of Arator, who has paid great attention to the cultivation of cedar hedges, says they should be transplanted in the three winter months, and in March. They should be taken up in such a manner, if possible, as not to remove the earth in immediate contact with the roots, and in this condition placed in their proper situation in the hedge. The smaller the cedars are when removed, the better. An annual trimming is indispensably necessary for the thickening of the hedge. The richer the ground, the better. The cedars should be hoed twice a year, until they attain the size at which they are to remain. The same writer adds, "the holly promises every thing as a shrub for live fences, but I have never tried it, nor do I know whether its seed will vegetate more kindly than those of the cedar. My hedge of cedar is the best I ever saw, and improves yearly."

The honey-locust of our forest is easily propagated from the seed. The plants thrive remarkably well, and owing to the powerful thorns with which they are clothed, form, when cultivated into a hedge, an impassable barrier, even in a single row. It is less beautiful than the cedar or the holly, but for outside fences, designed to resist the depredations of the animals that are running at large, it will, perhaps, be found that the honey-locust hedge has advantages over either of the before mentioned plants. It grows in most abundance, upon, and indeed may be said to be a native of the rich lands. Hence the importance of rendering the ground rich in which a hedge of this plant is about to be placed. J. C. Short, Esq. of this county, has made a successful experiment with the honey-locust, and is very favorably impressed with its value for making live fences. Its foliage is beautiful, folding the lobes of the leaves together every evening, like the clover and some other plants.

The common crab which abounds in our woods, is another plant well calculated for hedging. It possesses all the qualities to render it equal to the English thorn. In one particular, it has peculiar claims upon the attention of farmers—the beauty and fragrance of its flowers. For these it is unsurpassed by any other tree or shrub to be found in our forest. It may be readily propagated from the seed in the manner that the common apple tree is raised. An English gentleman, now a resident of this county, who is making some valuable experiments in hedging, has a crab hedge, which he thinks equal in all, and superior in some respects to those made of the English thorn. Among other claims to superiority over either the English or American thorn, is that of its rapid growth. From the experiments made by this individual, it appears that the crab hedge will come to perfection in one third less time than either the indigenous or foreign thorn.

The hemlock, in the opinion of Richard Peters, Esq. of Pennsylvania, is a plant of equal value with that of any other to be found in our country, for the formation of hedges. It retains its foliage through winter better than most of the resinous tribe. It grows more rapidly than the cedar, and can be raised with but little trouble, from the cones. It thrives well in the shade, and when in bloom, is the most beautiful of all its tribe. The limbs grow horizontally and longer than those of cedar. The *layers* will readily take root. The spring is the best season for transplanting them. The plant may be easily trimmed with the shears.

In low, wet grounds, the willow makes a thrifty and substantial fence. The white mulberry will also form a good hedge, but bearing no thorns, and the leaves being attractive to cattle, they are apt to prey upon it. Its introduction, however, whether for hedges or for ornament, about a farm, is becoming a matter of deep importance, in consequence of the leaves affording the most nutritious and valuable kind of food in the rearing of silk worms.

That hedges are cheaper and more durable than dead fences made of wood, is, we believe, the concurrent opinion of nearly all the writers and experimentalists, both of Great Britain and this country. Cobbett says, that in this country, a hedge with double rows of the English white thorn, nine hundred feet in length, can be made, that will cost, when five years old, including plants, planting, cultivation and clipping, but fifty-three dollars. There are hedges now standing in England that are from one hundred to three hundred years old. From these data, the farmer can make his own calculations between the cost and relative value of worm fences and live hedges for enclosing.

Another writer in the American Farmer, says, that a good hedge of the American thorn, when seven years old, will cost for every sixty perches, twenty-four dollars and seventy-five cents. For a farm of one hundred acres, divided into ten fields, twenty-five hundred pannels of post-and-rail fence would be required, which at seventy-five cents a pannel, would amount to $1875. The hedge fence for this same farm, with similar divisions, at the foregoing estimate, would cost $1031, leaving a clear balance, in the original cost, of $844 in favour of the live fence. At the end of one hundred years, the hedge, with a small annual expenditure of labor upon it, will be as good or better than it was at the end of the first seven years. The post-and-rail fence, in the course of one hundred years, would require at least six renewals. Surely no further illustrations upon this point need be made, to secure the early attention of the farmers of the west to this important part of their agricultural labors. It is to be borne in mind, moreover, that hedges are not, like dead fences, liable to be blown down by the winds; nor can they, like the latter, be readily overthrown by unruly animals. They are better safe-guards around orchards, vineyards and gardens, to protect them against the depredations of men, than the common fences, and finally, they are ornamental in the highest degree to a farm, a matter that will not be overlooked by the husbandman of taste and intelligence.

Another consideration in favour of an early resort to the live fences, arises from the fact, that in many parts of Kentucky and Ohio, the timber necessary for the construction of dead fences is becoming scarce. Such has been the excessive and wanton destruction of the forest trees in these states, that although it is less than half a century since the silence of the wilderness was first broken by the sound of the axe, it is a lamentable fact, that many farms are already without the timber necessary for another renewal of their fences. This is a growing evil in the land, and no alternative will shortly be left our farmers but the rearing of hedges. Whenever the experiment, with live fences, shall have been fairly made, we predict that the only regret of the agriculturist will be, that he had not sooner entered upon the system, and thus preserved, at least a part of the oaks and poplars and chestnuts that once, in towering magnificence, spread their verdant branches over his lands.

In conclusion, we propose to make a few observations upon the best modes of lessening the evils so loudly complained of by the western agriculturists, arising from their present system of enclosures.

The first and most important step is that of procuring the passage of a law prohibiting, absolutely, the running at large of horses, cattle, sheep, and more especially hogs. This is a measure that can work out no injury to the rich or the poor, but on the contrary, will confer signal advantages upon all classes of the community. No time should be lost in circulating petitions, praying the legislature for the passage of such an act, and no candidate who will not pledge himself to advocate the passage of such a law, should hereafter receive the votes of a single husbandman, who is not willing to see his grains and his fruits, which have been nourished by the sweat of his brow, annually eat up or trampled down by hungry and unruly animals. Our legislators should be told, (for it is a lamentable fact, that many who are annually elected, have not the intelligence to make the discovery themselves,) that protecting the farms of their constituents from the depredations of lawless hogs and cattle, is a matter of deeper importance, and better suited to their talents, than spending a session at the capitol, tinkering constitutions, or electing presidents. The apathy of our farmers on this subject, is truly marvellous: they act and vote for representatives as if they themselves had nothing at stake. Instead of electing, as their legislators, experienced, intelligent and practical men, they suffer themselves, year after year, to be cajoled of their votes by political demagogues, who have neither the inclination nor judgment for pursuing the interests of their constituents. We hesitate not in saying that a law of the kind here proposed, will do more in preserving the peace of neighborhoods, and in lessening the evils growing out of the want of permanent and substantial fences, than any other measure that can be suggested.

In the second place, it is manifest that where stone abounds upon the surface of a farm, in such situations, that it need not be hauled more than three or four hundred yards, sound policy will dictate the construction of stone fences in preference to those of dead timber. The economy of this system of enclosure, however, will greatly depend upon the manner of constructing the wall and the facility of procuring the material. But it is perfectly obvious that stone fences can never be generally adopted throughout the country. In certain situations and under certain circumstances they will be found highly advantageous.

Lastly, it has been made apparent, we think, that live fences or hedges, combine more economy, security and permanency than any other description of enclosures that has yet been adopted. We do not propose to re-enter upon the examination of their superior advantages. Enough, it is believed, has been said to secure for them the early attention of the farmers of the west. From what has been advanced upon the rearing of hedges, it will be perceived that it requires six or seven years to bring one to perfection. This is about the period that a common worm fence will last, provided it have some annual repairs. Young hedges need some kind of protection for the first three or four years from the depredations of animals. The existing fences will answer very well for this purpose. If then those farmers who now have their grounds enclosed with dead timber, were forthwith to plant out beside their fences, hedges of thorn, locust, crab, or cedar, instead of an expensive and laborious renewal of the former at the end of seven years, they would have in their places what in England is emphatically called an "everlasting fence," most pleasantly ornamental to their farms, and presenting an almost impervious barrier both to men and animals. This, once attained, together with the passage of a law prohibiting the running at large of animals, and the "fretting leprosy" of the land will be eradicated: the main leak being stopped, the farmer's cup of bliss will be full.

(From the Village Record.)

LIME MANURE, &c.

Shippensburg, Sept. 8, 1830.

Messrs. A. & C. Miner:

GENTLEMEN,—I own a small farm near this place, and for many years back there has been used on the same a ton or a ton and a half of plaster of Paris yearly, and in my opinion for the last few years the plaster has done but little good to the crops. I have been informed that in Chester county the farmers have, in a great measure, given up the use of plaster, and have taken to liming their lands, and that they have found it their interest to continue the liming. Liming land has not been practised in this vicinity that I know of; and this fall or summer I proposed to my farmer to burn a kiln on the farm and try it on two or three fields, to which he agreed; but after inquiring amongst his neighbors, who told him he would thereby ruin our land and get not more than half crops, we gave it up for the present. Now, gentlemen, as you live in the neighborhood of those who I suppose do put lime on their lands, and have a good opportunity of knowing its effects—I take the liberty of asking you to favor me with a line on the subject, and if you please, mention the usual quantity put on an acre, and at what time it is put out, spring or fall, or both—with any hints on the subject that may be useful to one who knows nothing about it—or if you would take the trouble to publish a piece in your paper on the subject of liming land, I would endeavour to have it re-published in the Franklin Repository, which has a considerable circulation in our neighborhood. If liming is useful at all, it might then become a public benefit to our farmers here, as they are generally well supplied with a great plenty of limestone and timber to burn it with. Your attention will confer a favor on your most obedient servant,

DAVID McCLURE.

P. M. Shippensburg, Pa.

TO DAVID McCLURE, ESQ.

Sir,—To your letter, wishing information in respect to the use of *lime*, as a manure, by the farmers of Chester county, I reply with pleasure; happy to impart any information that may be useful to any portion of my fellow citizens. *Lime* is used as a manure, extensively, in every part of Chester county, where it can be obtained. It is estimated that from five to eight hundred thousand bushels, are consumed, for that purpose yearly; and the beneficial effects of its free application, to all our soils is demonstrated, after an experience of more than thirty years, in the four-fold increased productiveness of the land, and by the fact, that the best and most prudent farmers, continue its use and in increased quantities.

A proper dressing of lime per acre, is about forty bushels—a strong clay soil may receive double that quantity with advantage; the lighter loamy soils will be benefited by thirty bushels to the acre. My neighbor *Abner Hoopes*, one of the best farmers in this vicinity, put last year on two fields ninety bushels to the acre. Within the borough, I purchased, six years ago, thirty-eight acres of land, twenty-six of which are arable; on the twenty-six acres, following the example and advice of experienced farmers, I put immediately 1300 bushels of lime. This at the kiln, in the valley, about six miles from home, cost 12½ cents per bushel, the price of hauling added, brought it to 17½ cents. The effects have been perfectly satisfactory.

On the subject of the mode of application, it may be proper to say, that the lime, as taken from the kiln, is placed in a heap convenient at once to the field and water, for the purpose of slaking, after which it is dropped on the land at suitable distances in heaps of about a bushel each, and then spread like manure. Experienced hands who can judge sufficiently well the quantity they distribute, often spread it from the tail of the cart.

On what crops, or in what state the land should be when lime can be best applied, there is less diversity of opinion than formerly. More and more, opinion is settling down, to that expressed by Mr. John Gheen, an excellent farmer on the Brandywine. "It is of less consequence what state your land is in than the main chance—that is—*put on the lime freely.*" As a top dressing for grass its salutary effects are admitted; but the most usual mode, and that which I should recommend, will be found in the custom here, connected with the most approved manner of farming, which I subjoin.

A farm of one hundred acres of cleared land is divided into seven or eight fields, for the purpose of pursuing a judicious rotation of crops, which is deemed indispensable. A field of clover sod is carefully turned down in the spring, as early as the frost will admit. On this field the dressing of lime is spread and well harrowed. Corn is then planted, taking care in laying out the furrows not to break the sod beneath. In preference to the plough, a hoe harrow is here in general use, for dressing the corn, and the sod not broken at all, or not until the last dressing. As soon as the crop is ripe, the stalks are cut close to the ground and put up in shocks in the field to be husked at leisure; the stalks are hauled to the barn, and fed during the winter, to the cattle; much will be eaten, but the chief benefit I imagine is derived from their being trodden into the barn-yard, absorbing juices which otherwise evaporate or wash away, and thus contributing to produce a large quantity of manure; the first object of every good farmer.

The next spring, while another clover field is managed in the same manner, the ground on which corn had grown is put in either with oats or barley. When this crop is harvested, the ground is ploughed, and the chief manure of the barn-yard drawn upon it. Twenty cart loads, for two horses, is deemed a good dressing; and this quantity, you must be aware is only to be obtained by the best management. Spreading manure, ploughing a second time, sowing the wheat and applying six quarts of timothy seed to the acre; and in the following March six quarts of clover seed, are properly understood by you as well as by us. I may, however, remark, that nearly double the quantity of grass seed formerly used, is now sown, and with manifest advantage. Supposing eight fields on the farm, you will see that one will be in corn, one in oats or barley, one in wheat, and five in grass, enabling the farmer to feed cattle for the market or to keep a dairy as may best suit his taste. The number of cattle kept, however, by increasing the quantity of manure, enables the farmer, by the aid of lime, rapidly to enrich his land, while, at the same time he increased its products and consequent profits.

As a caution, permit me to say; expect no magical effects from lime; it will not operate suddenly like plaster of Paris; but be assured it will give body and strength and fertility to yonr lands; and a few years experience will convince you that lime, as a manure, is in the highest degree valuable.

CHARLES MINER.

Who is the best farmer? Not he who has the largest farm or the most land. But he who does all his work at *the right time* and *in the right way.*

AGRICULTURAL SHOW AND FAIR.

The sixth annual Show and Fair of the Agricultural Society of Albemarle, was held on Friday and Saturday the 29th and 30th of October. We were gratified to remark that there was no falling off in the exhibition, or in the interest it excited. The improvement in the stock of horses and cattle was manifest; and the domestic manufactures, which constituted the main interest of the second day, were such as to do infinite credit to the ingenuity, industry and good management of our fair country women. They, themselves, honoured the occasion by their presence in considerable numbers, and conferred at once dignity and animation on the scene.

We wish all manner of prosperity to the society, and success to it patriotic efforts.—The institution of such associations has always been attended with great benefits wherever they have been established, and their objects prosecuted with zeal and intelligence. Those flowing from the agricultural society of Albemarle, are already manifest in various forms of improvement every where around us; but though its claim to be considered a benefactor of the county in every other particular should be denied it, its success in the attempt which we understand it is about to make to introduce the valuable stock of sheep which the skill and good management of Mr. Richard K. Meade, of Frederick county, have succeeded in forming to what seems to be the utmost desirable degree of perfection, would entitle the society to the lasting gratitude of the county.

The Committe appointed to examine the horses shown at the Agricultural exhibition held near Charlottesville, on the 29th day of October, 1830, having performed that duty in the order designated in the printed advertisement of the said show, respectfully submit the following report:

1. *Horses.* We award to Col. Jas. Barbour's imported horse, Truffle, as being eminently calculated to improve the breed of turf and saddle horses, the first premium of $12. No other stallion was exhibited.

To Col. James Barbour, for his imported mare Phantomia, by Phantom, the first premium of $8.

To James Ross, for his brown mare by Trafalgar, the second premium of $6

To Walter Coles, for his grey mare Camilla, by old Peacemaker, the third premium of $4.

From the great number of brood mares exhibited, many of them very fine and well blooded, and the difference being so little between some of them, the Committee feel much difficulty in deciding between their comparative merits. The Committee would respectfully recommend to the Society the propriety of dividing the premiums in their future exhibitions, between blooded horses and those calculated for the draft.

To Benjamin Ficklin, for his grey filly, three years old, we award the first premium of $4.

To William Woods, for his sorrel colt, three years old, the second premium of $3.

To Daniel M. Railey, for his bay horse, three years old, the third premium of $2.

To Peter Meriwether, for his sorrel colt of two years old, the first premium of $4.

To Joseph Harper, for his brown filly, two years old, by Mountaineer, the second premium of $3.

To George M. Woods, for his brown filly, by Mountaineer, the third premium of $2.

To Col. James Barbour, for his imported sorrel filly one year old, out of Phantomia, by old Truffle, the first premium of $4.

To Richard D. Simms, for his bay colt, one year old, by Fayette, the second premium of $3.

To John A. G. Davis, for his sorrel colt, one year old, by Fayette, the third premium of $2.

SAMUEL CARR,
TH. J. RANDOLPH,
GEO. W. KINSOLVING,
WM. WOODS.

2. *Cattle.* We the undersigned, a Committee to award premiums for cattle, make the following report:

For the best bull, Nelson Barksdale.
For the 2d do. Hugh Minor.
For the 3d do. William H. Meriwether.
For the best bull, not more than three nor less than one year old, John H. Craven.
For the 2d best, Reuben Lewis.
For the 3d do. George M. Woods.
For the best cow, William Woods,
For the 2d do. John Winn.
For the 3d do. John H. Craven.
For the best heifer, not more than three nor less than one year old, John H. Craven.
For the 2d best Nelson Barksdale.
For the 3d do. William Garth.
For the best yoke of oxen, Wm. Woods.
For the 2d do. Reuben Lewis.
For the 3d do. John H. Craven.

JAMES LINDSAY,
JOSEPH HARPER,
REUBEN MAURY.

Report of the Judges on sheep at the Agricultural show and fair for the county of Albemarle, on the 29th and 30th of October, 1830.

3. *Sheep.* The Judges are sorry to report a very indifferent exhibition of sheep, which consisted only of two pens of lambs, said to be late;—they were certainly not very well grown. We must say, however small and indifferent the sheep may have appeared, that they were remarkably well clothed with good fleeces of fine wool, being considerably mixed with the Merino. It appears by a rule of the Society that it is imperative on judges of sheep, swine, &c., to award premiums; they have concluded, however, to award preminms of the second and third grades only.

They award, therefore, to Col. William Woods, a premium of three dollars for his best ram, and a premium of two dollars for his second best, placing them in the second and third grades.

We award a premium of three dollars to Capt. George M. Woods, for the best pen of ewes, and a premium of two dollars to Col. William Woods, for the second best pen of ewes, placing them in the second and third grades.—All which is respectfully submitted.

PETER M. MERIWETHER,
REUBEN LINDSAY,
H. WHITE.

4. *Domestic Manufactures.* The Committee appointed by the Albemarle Agricultural Society, to award premiums on linen and thread, and cotton fabrics, do award the following:

To James O. Carr, for the best counterpane, $5.

To Geo. M. Woods, second best, $3.

To Mrs. Mildred M. Lewis, for the best pair of cotton hose, $2.

To the same, 2d best, $1.

To Mrs. A. D. Thom, for the best piece of negro shirting, $4.

To the same for the best linen shirting, $5.

To the same for the best thread and cotton shirting, $4.

To John Atkinson, for the second best, $2.

To Mrs. Mildred M. Lewis, for the best piece of summer coating, $5.

To John Atkinson, for the second best, $4.

To Mrs. Eliza A. Woods, for the best piece of linen diaper for tables, $5.

To R. D. Durrett, second best, $3.

To Mrs. Mildred M. Lewis, for the best cotton and thread diaper, $3.

To America Donglas, second best, $2.

To Mrs. A. D. Thom, for dimity, $5.

To Mrs. Eliza A. Woods, second best, $3.

All which is respectfully reported.

JAMES CLARK,
JOHN FAGG,
CHARLES BROWN.

The undersigned, appointed to examine domestic woollen fabrics, report that they have awarded premiums as follows:

To Mrs. R. Lindsay, for the best hearth rug, the first premium.

To Mrs. James Clark, for the best piece of wool flannel.

To Mrs. A. D. Thom, for the second best.

To Mrs. James Clark, for the best piece of wool and cotton.

To Lucy Payne for the second do.

To Mrs. James Clark, for the best piece of plaid.

To John Atkinson, for the second do.

To Mrs. E. Clark, for the best carpeting.

To Mrs. R. Lindsay, for the second do.

To Mrs. A. D. Thom, for the best piece of wearing cloth.

To Mrs. James O. Carr, for the second do.

To Mrs. R. D. Simms, a first premium for the best piece of vesting.

To Benjamin Ficklin, for the best counterpane.

To John Atkinson, for the second do.

To Mrs. James Clark, a second premium for the best pair of blankets.

To Miss Clark of Orange, for the best pair of hose.

To Mrs. Thornton Rogers, for the second do.

To Mr. John Lastly, a second premium for the best piece of negro clothing.—All of which is respectfully submitted.

James Lindsay,
A. Broadhead,
Mann Page.

The society were highly gratified by an exhibition of several interesting specimens of raw silk, the produce of the care and attention of Miss Margaret Duke, and of a piece of silk and cotton mixture, the manufacture of the same young lady from native silk, for which a discretionary premium of $5 was awarded her.

5. *Agricultural Products.* The Committee appointed to examine the Agricultural products exhibited for premium at the exhibition and fair held in Charlottesville, on the 29th and 30th of October, 1830, have performed that duty, and respectfully submit the following report:

They regret that but few articles of agricultural products were exhibited to them. Of the number, they award the premium of ten dollars to Dr. Frank Carr, for the best domestic wine, the pure juice of the grape, which they consider of very superior quality. They further award the first premium of five dollars, to Mrs. Eliza A. Woods, for the best domestic cheese, it being of very superior quality, and the only objection to it being the want of age. They award the second premium of three dollars, to Mrs. Ellen Ficklin.

They further award the premium of ten dollars to Dr. Mann Page, for the best hogshead of tobacco, made in the year 1829, tested by the bill of sale, (the hogshead having been sold for $6 50 per cwt.) and a sample drawn by the Inspector, which they consider of very superior quality.

Walter Coles,
Reuben Lewis,
Samuel Carr.

6. *Suits of Clothes.* The Committee appointed to examine and award premiums on domestic suits of clothes, have much pleasure in announcing to the society a considerable improvement, upon the exhibition of preceding fairs, in that branch of domestic manufactures. Our pleasure has, however, been much diminished by the difficulty of deciding between several very superior suits, and the fear of doing injustice where there was, apparently, so little difference.

To Col. Wm. Woods' suit of light grey, we have awarded the first premium of $8, and cannot forbear taking occasion to compliment the excellency, as regards texture and bleach, of his linen shirt and cravat.

To Mr. Reuben Lindsay, we award the second premium of six dollars for his suit of blue of superior dye. Mr. Lindsay's under clothes, (shirt and drawers) entirely of wool were excellent.

The third premium of $4, we award to Col. James O. Carr's suit of dark grey;—and such was the difficulty of deciding between his, and that of Mr. Wm. Dabney, of the same colour, that we regret exceedingly, that we have not another premium at our discretion; and should be very much gratified if the society would award to Mr. Dabney a discretionary premium of the same amount.—All of which is respectfully submitted.

Daniel M. Railey,
John W. Gantt,
Richard Duke.

The above report was adopted by the society, with the exception of the discretionary premium recommended by the committee in favor of Mr. Dabney; the society having adopted a regulation forbidding any discretionary premium, except for an article of new invention.

Frank Carr, *Sec'ry.*

WOOL.

The Foreign Quarterly Review has an article on the German Wool Trade, from which we gather the following facts:

From 1814 to 1819, the annual amount of wool imported into England from Germany increased from 3,595,145 lbs. to 4,557,938 lbs.; and in 1828 it was no less than 23,110,822 lbs. At the same periods the annual amounts of wool imported into England from N. S. Wales, were 32,971—7,284—and 1,603,512 lbs. Some of the N. S. W. wool is said to be fully equal to the best from Saxony.—Great efforts are now made to improve the breed of sheep in Russia, as well as in Silesia, Bohemia, Poland, &c. Merinoes are also spreading into Italy. Spain has lost her credit; many of the best flocks of merinoes were driven to France by Napoleon's Generals, and those that remain, have become so degenerate, as not to be worth more than one third as much as the same stock of sheep in Germany.—The average weight of a German merino fleece is from 2½ to 3 lbs.—The average annual production of wool in England is 111,160,560 lbs.—*Journal of Humanity.*

HORTICULTURE.

TABLE GRAPES.

Columbia, S. C. Oct. 26, 1830.

Mr. Smith:

Sir,—I have sometime since promised, rather indiscreetly, to furnish for your most valuable agricultural journal, an article on the culture of the grape, principally for the table, for private gardens, and also for those who furnish the markets with this most elegant fruit. Having been requested to do so, I did not know how to refuse, although I was certain that there are many persons much more able to do justice to such a subject than I am; I must, however, redeem my promise, calculating on your and your readers' indulgence for the many unavoidable imperfections of the article; for I am not a gardener, and I must rest my hopes of indulgence on my wish to do all in my power to promote so important a culture.

It is difficult and perhaps unnecessary to distinguish accurately between table and wine grapes. Many persons suppose that it is with grapes as it is generally with apples, and that, as the best cider-apples are not fit to eat, the grapes used for wine are not palatable. It is not so. All the grapes that I have seen that make good wine, are more or less good for the table, and some of them are even eminent for both uses. It is true that some of the most esteemed table grapes are very indifferent for wine, such as the family of the "Chasselas," and others which make only a flat and weak wine, and although they are exceedingly pleasant and sweet to the taste, they contain but little saccharine matter. It requires, therefore, an experienced palate to enable one to pronounce certainly on the quality of a grape for wine by its taste alone. But if some of the best table grapes are not suitable to make good wine, there are but few of the best wine grapes which are not also a very pleasant and delicious fruit. Their qualities for this, are, however, very various, and are adapted also to different purposes: some being only suitable for immediate use, while others can be easily kept a long time, not only on the vine, but also after they have been gathered. It might be useful to make a full enumeration of them with the particular properties of each; but besides my inability to do so, it would render this article much too long. I shall therefore merely say, that those grapes which have a thin juice may be looked upon as unsuitable to be kept long, and that those whose pulp or flesh is firm and cracking, may be kept more or less long as they possess more or less of these qualities. These last are also the most fit for raisins.

The grape may be termed the fruit *par excellence;* for besides its various and most delicious flavors, it has deservedly the reputation of being most wholesome, and, when it is perfectly ripe, it is said to restore invalids to a healthy state, and to obviate the disorders of the stomach in dyspeptic persons. Its beauty is also of the first order, and many plants, which are cultivated with no other object than this quality, are very inferior in this respect to the grape. A plant, therefore, so eminently possessed of all these desirable qualities deserves the utmost care in its cultivation.

The principles of its culture, whether on a large scale in the fields for wine, or on a small one in gardens, for the fruit are necessarily the same; yet the protection afforded in gardens, by walls, houses, &c. together with the greater fertility of the soil, render it, in these, generally more successful. One of the principal aims in planting a vine, whether a cutting or a rooted plant, ought to be to do it in such a manner that the roots will be induced to go deeply into the soil in search of a permanent supply of moisture; for, if the roots run horizontally at a small depth, they will, in a rainy season, supply the plant with a superabundance of water, and in dry weather, this supply will be stopped or considerably lessened; and these two extremes must be injurious. It is thus that this most destructive disease of the grape, *the rot,* is supposed by judicious and intelligent persons to be produced. Mr. George J. F. Clarke, of St. Augustine, a gentleman of great observation and sagacity, in an interesting article in the Southern Agriculturist for this month, attributes the rot of the grape to this alternation of dry and wet weather, and in this, I perfectly agree with him. (This rot is a different disease from the mildew of the north.) The month of May and part of June are usually very hot and dry; and although the vine does not appear to be much destressed or suffering, yet the change of colour in the leaves, particularly the lower ones, shews that something is not right. During this time the earth is dry to a considerable depth, more so, perhaps, than most people are aware of. After three or four weeks of such a drought, an abundance of rain comes, which supplies the thirsty vine with a superfluous quantity of water, particularly when the upper, also called "*day light-roots*" have never been suppressed, as they ought to be every winter. The consequence of this is, that the young fruit is drowned, in a manner, by it, and it rots. This is certainly the fact, whether it be accounted for correctly or not: this shows the necessity of providing against this cause, which, if duly done, the effect must cease.

For the vine, then, a soil ought to be selected deep and permeable. A trench two or three feet deep made, and the bottom strewed with a compost made of well rotted vegetable matter, manure from the cow-pen, and as much as possible, of the *debris* of old buildings, old mortar, plaistering or any other coarse materials containing lime. These ingredients being well mixed, are to be spaded in the bottom of the trench, so as to incorporate them well with the bottom soil. On this, the vine is to be planted, with the roots as sound and as long as practicable, if rooted plants are used, (otherwise the cuttings are placed somewhat obliquely,) the roots are spread evenly, and covered with the surface soil taken from the trench, reserving the lower soil which is less fertile for the top; it is best not to fill up the trench at once, but rather to do it gradually and in the course of several years, this will induce the lower roots to descend into the rich bed below, acquire strength, and enable them to supply the vine with due nourishment, without the assistance of the upper roots, which are to be suppressed every year as said above. The better to prevent the growth of these *day-light-roots*, it is thought advisable to fill up the trench, as it is done gradually, with the poorest soil or sand. It appears to me that a vine thus planted will not be liable to these injurious alternations of dryness and moisture.—This must not be looked upon as a mere plausible theory; for it is, to some extent, the European practice, which, though not given in the books for this object, is probably the principal reason of its having been adopted there, although perhaps this is unknown to the writers. The practice of cutting off yearly the "day-light-roots" to the depth of six to ten inches, is almost universal in all Europe; although the preventing of the rot is not given as the reason, it may have originally been the cause of its adoption.

I am fully aware that this manner of planting is liable to objections, as it offers a violent opposition to nature which generally produces the roots of plants where they are most likely to answer her purpose. It is true, that, generally speaking, trees ought not to be planted deeper than they grow naturally, and that, if it be done, nature will make an effort to produce another set of roots in their usual places, and this will be to the detriment of the lower old roots, which will thereby suffer much, and, in many cases, perish entirely, to the great injury of the tree. This is true, and perhaps, philosophical reasoning; but we must also take experience for our guide, and it shows that the vine endures these encroachments on its habits. Neither ought we to view the habits of plants in their native state and in our forests as being precisely those which they would assume in different situations. In the woods, the ground is covered with leaves and other vegetable matter, which besides the shade of the trees, &c. protect the shallow roots from the direct influence of the sun and air, and compensate in a great degree the want of the depth which is here proposed to be given to the vine in more open situations. The moisture preserved on the surface of the ground, in the woods, by this shade and covering of leaves, &c. must be somehow compensated, and it seems to be best done by planting at a greater depth. Those, however, who may object positively to this deep planting, may come near it by filling partly the trench with the earth from the surface, enriched with well rotten compost as above stated, and if they be careful to suppress yearly the upper roots, the lower ones will most probably acquire sufficient depth and strength to answer the desired purpose. Supposing the vines, cuttings or roots, planted as directed before, it matters not that their tops are below the general surface of the ground, because the trench will not be filled up for two or three years, when this objection will no longer exist. Rooted vines ought to be so planted as to leave only two or three buds above the ground, rather less than more, according, however, to the size and strength of the individual plant. Cuttings should be planted so as to show only one bud above the ground, and the second just below the surface. Vines planted with these precautions will grow very vigorously, and ought to have stakes to which the shoots are to be neatly tied with some soft substance, so as not to injure the tender bark. It is best to suffer cuttings to raise only one shoot, the others being carefully rubbed or broken off. On rooted plants two or three shoots may be suffered to grow according to their strength. In either case the lower side shoots or "*interleaves*" should be cut off above their first leaf, as high as it is intended to prune the following winter, and all above that, are suffered to grow as they please. The main shoots should not be topped. There is a diversity of opinion as to the best season for taking off these "interleaves," and also as to the manner of doing it. Some advise their being broken or pinched close off as soon as they appear, others leave them till about mid-summer, and then break or cut them off so as to leave one or two leaves on them; I prefer the latter mode, as being the least opposed to the object which nature may have in view in producing them, whatever that may be. It might, perhaps, be still better to leave them altogether.

The following winter, the shoots produced from the cuttings, if pruned at all, are to be cut down to one good bud or two at most, if the growth has been very strong, and those produced from the rooted vines are to be pruned according to their size, vigor, and the object one has in view. If very strong and the object is to cover an arbor, espalier or wall, they may be left about two or three feet high, and when all danger of late spring frosts is over, break off all the shoots below the two upper ones; these are to be trained up and treated in the same manner the following winter, so that in three or four years, the arbor will be nearly covered over. When the height is not desired soon, these strong shoots are to be pruned down to two or three buds, and raised gradually to the height wanted. In pruning vines, there is generally much more danger of leaving too much wood than of pruning too short. When the vine has attained nearly the extent intended, all the weak shoots of the preceding year, and also all those that are misplaced or too crowded, are to be cut off close to the old wood, and the other cut down to two, three or more buds, according to the situation and vigor of the shoot. It is sometimes desirable to fill up a vacancy, and this may be done by selecting a very strong shoot, and leave it as long as convenient, so that it be still stout at the place where it is cut off, and suffer only two or three buds to grow, rubbing off all the others, unless one should be much wanted for filling up a vacancy on the side. By pruning very short, the buds left will produce a very strong growth, and the fruit generally bears a proportion to the branch that produces it.

It is desirable that grapes for the table should not only be very good, but as handsome as their nature will admit. To attain this object any thing that may affect them injuriously is to be removed from the clusters. The claspers, for example, if left, are apt to twist round a bunch of grapes, and if it be not removed in time, will injure it greatly. When any accidents or disease happen to any of the berries, such ought to be cut off with a small pair of scissors, taking off the little stem of the berry close to the main stem of the bunch. Some even thin them in this manner when the bunches are too compact. The consequence of this operation is, that the berries have more room, ripen better and grow larger, and make a much better appearance. The leaves that grow near the fruit ought never to be pulled off; it is never done without injuring it, unless perhaps when the fruit is ripe. If, however, some necessity should occur to take away leaves so situated, it ought to be done with a knife or scissors so as to leave the stem of the leaf.

After the second pruning of such vines as were raised from cuttings, or the weak ones from roots, which have hitherto been left very short, they are treated as the strong rooted ones were at the first pruning, and continued in the same manner as being two or three years younger.

In planting a vine to be trained against a wall or fence, it ought to be placed at the distance of at least two feet from it, and incline it gradually to it. A good manner of training them against a wall is to leave the first strong shoot about three or four feet high; suffer only two buds to grow on it, that they may form strong shoots, and train them horizontally one on each side. The next winter, prune these to a suitable length, and leave also only two buds on each to grow. The upper one of these is trained in extension of the line of the two first, that is, horizontally, and the other bud obliquely, so that the four shoots be at equal distances from each other, and continue in this manner till the wall, espalier, or bower is complete. Some vines are so vigorous and gigantic in their growth as not to be restrained; these, of course require a great space, and I have been obliged to double an arbour to find room for the vines to expand, and now they have scarcely room enough. Others, though healthy, are much less in their dimensions, and are unfit for covering arbours; these are to be planted nearer each other, and trained up a low frame in the form of a fan or any other according to fancy: they require shorter pruning than the former.

After grapes are ripe, they may be preserved for a long time on the vines by putting them in thin linen, cotton or paper bags, by which they are protected against birds and insects which would otherwise devour them: they may also be kept after they have been gathered in various ways; but as the modes of doing this are found in books that are in the hands of every body, I need not say any thing about it.

Here, then, I must terminate this long and tedious epistle, by assuring the new proprietors of the American Farmer, that I sincerely wish them all the success which so worthy an undertaking merits.

I am, sir, your most obedient servant,

N. Herbemont.

SILK.

Believing that the culture of silk might be made a source of profit to this country, we have occasionally called to the subject the attention of our readers; and we are pleased to learn that it has excited some inquiry and investigation, which, if prudently conducted, bid fair to produce important results. The premiums offered by the H. H and F. Agricultural Society, we trust, have done some good in the cause, by directing the efforts of individuals who might not otherwise have been induced to enter the untravelled road of experiments. At the approaching anniversary to be held at Northampton, we expect there will be occular evidence that old Hampshire has not been *sound asleep* upon the subject. It is hoped there will be numerous specimens of American silk exhibited.

We have had occasion to examine some American sewing silk; and, though it is generally inferior in some respects to European silk, yet, we are told, that when well made, it is, except the blue, preferred to that. One important point, in which the Americans fail, is the coloring; which is usually of a dull, dingy hue, and makes but a sorry appearance by the side of the bright and glossy skeins of Italy. Ours is not so well twisted as foreign silk; and a great deal of it is so uneven that one would almost think it had been purposely made to imitate strings of onions: of course such silk is worthless, for no tailor or sempstress will use it if any other can be obtained.

But our people make some very good silk. The color is fair, the twisting neat and tight, and the thread even. This is preferred before the foreign article, because it is stronger. We have recently been presented with a few skeins of such silk, made the last season by Mrs. Shaw, of Belchertown. It certainly reflects great credit upon the lady for her skill and ingenuity. Some of the skeins are too fine for ordinary use, and one excels in fineness any thing of the kind we ever saw, and is nevertheless a triple thread. A skein of red silk amongst it has been pronounced, by a good judge, to be English; but an individual who is in the constant habit of using sewing silk, declared his conviction that it was American, though superior in quality to any European silk that could be obtained. Two sticks of twist, were included in the present, and we think we may challenge our friends, the merchants, to find *better* on their shelves.

We were highly gratified to receive the above specimen from a friend; and will comply with his request to place it in a conspicuous situation in our office where it may be seen.—*N. Hamp. paper.*

ORNAMENTAL TREE.

Mr. Smith: *Oxford, Nov. 2, 1830.*

I have a tree from Mr. Prince of Long Island, called the Chinese Alanthus, or Tree of Heaven, so called in Japan; it came to me after being on board of several vessels and had been done up so well, that it would have stood the test to Europe and back, and then have lived. I received it in the spring of 1828, it was then about four feet three inches long; the first year it could not be expected to grow much, but last year the leaves on it were measured; several were from four feet nine, to four feet ten inches long; this year has been very dry with us, and the leaves are only about four feet, but the tree has so much taken the attention of strangers and made such a growth, that yesterday I measured its heighth, which was eighteen feet nine inches; and can only be called two year's growth: it has no limbs and is very straight and ornamental.

I have some rooted Grape Vines for sale.

John Willis.

INTERNAL IMPROVEMENT.

From the Baltimore American.

RAIL ROADS AND CANALS.

The Charleston papers inform us that about six miles of the Rail-road leading from that city are completed, and that the work is in rapid progress. They also announce the arrival of a locomotive engine, made in New York. As soon as a section of the Road is finished it is brought into operation for the passage of passenger carriages.

The Petersburg, (Va.) Rail-road Company, we observe, are making preparations for an active and vigorous prosecution of their work in the ensuing spring. They have invited proposals for furnishing the requisite timber for *six* sections of the road, of ten miles each.

The New Castle and Frenchtown Rail-road Company have the whole of their line under contract for graduation. We mentioned a few days ago that the Camden and Amboy Rail-road Company had invited proposals for furnishing 30,000 stone blocks for the construction of that road. The road has since been commenced at Camden.

The engineers of the Lexington and Ohio Rail-road are still engaged in the surveys of the route of the road. The result, so far as they have advanced, shows that the country is peculiarly favourable for the construction of the work.

The Annual Report of the Baltimore and Susquehanna Rail-road Company, containing a detailed account of the proceedings of the past year, and of the measures contemplated to be pursued during the present, has been so recently published as to leave us nothing to add, at this time, to the information it affords, in relation to the progress and prospects of the undertaking.

In reference to the Baltimore and Ohio Rail-road, which may justly be called the parent scheme, we have, for the reason just stated, but little to add to the fund of information recently given to the community. The First Division of thirteen miles continues to be kept in active and profitable operation by the numerous visiters, citizens, and strangers from all parts of the country, who are daily making excursions on it. The various parts of the unfinished lines are advancing with a steady progress, and will soon contribute their share of interest and productiveness to the general undertaking. A committee of the Board, we learn left this city at the beginning of the last week for the purpose of locating the depot at Frederick. We observe that a general meeting of the citizens was to have been held on Friday last, in relation to this particular subject.

The Westfield (Mass.) Register states that "in consequence of the failure of the water in Southwick ponds, the Canal had not been navigable between that place and Granby, Con. for the last two or three months."

The Leesburg Genius of Liberty states that three breaches have taken place in the Chesapeake and Ohio Canal between Seneca and the old locks. "This unfortunate occurrence is ascribed to the unskilful method observed in the construction of the wall, or stone work, which is based upon a shoulder of earth, some distance from the bottom of the canal. This shoulder, it appears, upon becoming saturated with water, yields to the pressure of the wall above, until the whole mass becomes a heap of ruins."

The navigation of the Union (Penn.) Canal, which had been suspended for want of an adequate supply of water at the summit level, was resumed a short time since, and is expected to continue until "the close of the season," in other words, until impeded by ice. Some of the sections of the Pennsylvania State Canal have also been re-opened, after a suspension attributable, we infer, to the same cause. The long continuing impediment presented by the ice in winter, and the occasional, and equally disadvantageous interruption, because of its uncertainty, arising from the drought of summer, are drawbacks of a most serious character to canals, and, from the nature of the works, cannot be countervailed by human ingenuity. From these and other disadvantages attendant on canals, rail-roads are entirely exempt; but if in all other points the two modes of transportation were equal,—which, by the by, is far from being the case,—the simple fact that rail-roads are equally practicable *at all seasons,* would of itself be sufficient to decide the scale in their favour.

By the following article from the Philadelphia Sentinel, which we have had in type for some days, it will be seen that great progress has been made in the extended scheme of Canal navigation adopted by the State of Pennsylvania. So much capital has been already expended, and the plan has advanced so far towards completion, that it cannot now be abandoned for another, although manifestly superior. There can be no doubt, however, that when completed, the State will realize all the benefits which that system of intercommunication is capable of affording.

From the Philadelphia Sentinel.

The Canals.—We learn with great satisfaction, that all the state canals which had been authorised by the Legislature to be placed under contract, will be completed for navigation by the 15th of November ensuing.

The water has already been let into two hundred miles of Canal, which is now navigable, and the local newspapers inform us that the Delaware, the North and West Branch, and additional portions of the Western and Juniata divisions are now filling, making a further navigation of one hundred and fifty miles.—The remainder of the authorised Canals will be completed by the 15th of November.

By the 1st of December, the grading, bridging, &c. of forty miles of the road-way of the Columbia and Philadelphia Rail-road will be finished ready for laying the rails.

There is now a continuous line of Canal from Philadelphia by the Schuylkill, Union and Pennsylvania Canals, to Augwich, near Huntingdon, on the Juniata, a distance by the Canals of two hundred and forty miles. The line will be extended twenty miles further within the present year. The whole line from Johnstown, at the western side of the Alleghany mountain, a line of upwards of one hundred miles, will be navigable by the 1st of November. This will leave a space of but seventy-eight miles between Huntingdon and Johnstown to be completed, in order to effect the connection by canal and portage between the navigable waters of the vast valleys of the Ohio and Mississippi and the city of Philadelphia.

The canal communication from Philadelphia to the valley of the Wyoming, will be established in a few days. The distance from Philadelphia to Wyoming is two hundred and sixty miles.

It will be cause of great satisfaction to all the citizens of the commonwealth, if by the meeting of the legislature it shall be officially announced by the Board of Canal Commissioners that so much of the Canal and Rail-way as has been authorized by law to be constructed, has been actually finished.—The extent of the obligations of the state may be then accurately ascertained, and the legislature will be able to decide what further obligations may be entered into, commensurate with the means of the state, and with existing general interests.

The members of the present board of Commissioners we believe have personally visited all the divisions of the canal under their care, and have used every proper means to insure economy in the expenditures, and to effect the rapid completion of the works, and we are desirous to award them full credit for their efficient exertions and judicious arrangements.

The present board consists of Messrs. J. S. Stevenson, (President,) James Clarke and John Mitchell.

MISCELLANEOUS.

CURIOSITY.

Florida abounds with lakes or ponds from a few yards to a mile in diameter—the banks are sometimes sloping, but generally abrupt. The water is often of great depth. A circumstance occurred a few days since which shows the manner in which they are formed. This country is based on a porous shell rock of the most recent, or tertiary formation, which is penetrated in every direction by streams of various magnitudes, from the rivulet to navigable rivers. The Waucissa which rises in Jefferson county, is supposed to discharge a larger quantity of water than James River at Richmond. The Wakulla is also a considerable river at its first appearance. It is supposed to discharge the waters of Lake Jackson and the lamonia. Between the fountain of the Wakulla and these lakes a number of smaller ones occur at intervals. The water is deep and transparent at all seasons, indicating a constant supply and discharge by subterraneous channels. About four miles southwest from Tallahasse, in their vicinity, a lake of about an acre in extent was recently formed. We are told that a party were fire hunting deer, and had passed the spot but a few moments previously.—The earth which was covered with large trees, fell with a tremendous crash, and the frightened huntsmen fled in consternation. The spot has since been visited by some gentlemen from this place—they state that it is from forty to fifty feet from the surface to the water, the depth of which was not ascertained. The banks are nearly perpendicular. The *sink* is surrounded by high sand ridges. [*Tallahasse Floridian.*

Georgia Cotton Crop.—Our correspondent at Milledgeville writes us, that the cotton crop in the upper part of the state, although short, will not be greatly deficient as was supposed some six weeks since. Rains and favorable weather had improved the plant considerably. Below on the road from Savannah to Milledgeville, the cotton looked miserable, and will produce but little. [*Georgian.*

THE FARMER.

Baltimore, Friday, Nov. 12, 1830.

Our own Concerns.—We feel assured that we shall be excused for transferring the following article to our columns, when it is considered, that all we possess, both of good name and the world's goods, is involved in the issue of our present undertaking. The Editor of the Baltimore Patriot will accept our thanks for his liberal and handsome, as well as timely notice of our labours; and we assure him, as well as our subscribers, that so far as untiring industry and good intentions are concerned, the future numbers of the Farmer shall not suffer in a comparison with any of those heretofore published. We may also be permitted to congratulate ourselves upon another complimentary notice of the Farmer. At a meeting recently held at Wheeling, Va. the object of which was to form a new settlement in the state of Illinois, a report and plan of the association was presented and adopted; and among the items of the plan there was one to furnish a Reading Room and Library to contain a copy of various newspapers and periodicals, *and twenty copies of the American Farmer.*

Such notices of our labours, coming too from such sources, are highly gratifying to our feelings, and will stimulate us to the exertion of all our abilities, not only to obtain, but to deserve them in future.

(From the Baltimore Patriot.)

THE AMERICAN FARMER.

As we anticipated, the late change in the editorship of this truly excellent Agricultural paper, has in no respect detracted from its merits, but on the contrary, there is an evident improvement in all its departments, leaving no room to doubt its continued unrivalled usefulness to the agricultural interests of the country. There is on every page of the Farmer, under its present management, an evidence of untiring industry, application, and practical acquaintance with the subjects on which it treats, that should recommend it to every farmer. Indeed we do not see how any farmer, in the present state of agriculture, can possibly dispense with this most valuable work. We have heard of several gentlemen declaring they would not be without the American Farmer for ten times the amount of its annual subscription. One gentleman, now a rich planter in North Carolina, said a few weeks since, that he owed his success in agricultural pursuits to information derived from its pages; and he mentioned a single instance as illustrative of the remark. He had pursued a particular system of growing wheat, until he had almost ruined his land, making at the same time most miserable crops. But it was the practice in the whole neighborhood, and no one thought of the fault being in the mode of cultivation, but attributed the decline in crops and impoverishment of land to causes beyond their control. An article in the American Farmer, pointing out the errors of the practice caught his notice, and he determined to try the experiment; he did so, and the result has been a complete renovation of his land; abundant crops, and an independency; while his neighbors, obstinately adhering to the systems their fathers taught them, and rejecting what they call "book farming," still continue to reap their scanty crops from their starved and impoverished fields.—This gentleman declared that he would not be deprived of the knowledge he obtained through the American Farmer for one thousand dollars; and that it had already been worth more than that sum to him. Another gentleman in Connecticut, and another in Delaware expressed the same sentiments. Such testimony, coming as it does from the three great divisions of the country, the northern, middle and southern states—and this, too, voluntarily made, without concert, and unsolicited by the editor or proprietors, is the highest tribute that can be paid to the excellencies of a public Journal.

We are glad to learn, that many of the oldest and most respectable subscribers to the Farmer, have expressed their entire approbation of the late change of editors, and volunteered a continuance of their correspondence, while at the same time many new and valuable correspondents have been added to the list.

In a conversation with the editor, we learn, that the demand for complete sets of the Farmer from the commencement of its publication, has been so great that very few, probably not more than a dozen, can now be made up. This is to be regretted, as a reprint of such an immense work is out of the question. The proprietors, however, have determined to continue to dispose of them at five dollars a volume, or fifty-five dollars for a complete set,—the subscription price, while they shall last; and we would recommend those who may wish to obtain this valuable work, which undoubtedly contains the greatest and most complete body of agricultural information of any work now extant, to lose no time in securing it. We are also informed that there are a superabundance of a few of the volumes, which will be sold separately.

We have deemed it but just and proper to say thus much of a publication so deserving, and we hope our brother editors will join us in rendering this justice by copying this article or taking some other appropriate notice of the subject of it.

Foreign News.—Upon consideration, we have concluded to publish no more foreign news. It is presumed that all of our subscribers take newspapers, through the medium of which they must generally receive foreign intelligence before it can reach them in the Farmer; besides, it is impossible to do any thing like justice to it in the small space to which we are necessarily confined. Such articles however, as have a bearing upon our agricultural interests, and the markets, will continue to receive attention.

Silk.—We observe in the report of the Washington county agricultural society of Pennsylvania, the award of eight dollars to Mrs. Bombarger, for one pound of the best sewing silk; and six dollars to Miss Jane Howe, for the 2d best. The committee on this subject remark:

"We would here express our regret at seeing so little sewing silk on our table.—That presented by Mrs. Bombarger, and Miss Howe, was of an excellent quality, possessing all the strength of the best imported sewing silk; but we consider it strange that so little attention has been paid to this profitable branch of industry, and would urge a still further trial.

"The question of its practicability we consider as already settled. Facts shew clearly that our soil and climate are both admirably adapted to the growth of silk. The leaves of the native Mulberry, a tree which grows spontaneously and abundantly throughout our country, answer for feeding the Silk Worm equally well with the Italian, and the specimens of American silk lately sent to France, has, after trial, been pronounced equal to any in the world. Mr. Rapp, of Economy, has been very successful in raising the silk worms and is now ready to commence the manufacture—so that we may calculate on a market for cocoons the next season."

Agricultural Societies.—We of course cannot pretend to give full reports of all the agriculural exhibitions in so extensive a range of country, and must therefore content ourselves with brief extracts.

Washington Pennsylvania Agricultural Soc.

Extract from the Report.

By order of the board of directors, the subscribing committee present to the public the annexed general report of the late Exhibition and Cattle Show, held on the 20th and 21st ult. This is the ninth exhibition, the society having been that number of years in operation, and instead of losing its interest in public favour, (as many similar institutions have done in this state) it is our impression that it is acquiring popularity and increased interest with our agricultural and manufacturing classes, in proportion as its usefulness becomes evident. This impression, we believe, is fully warranted by the facts connected with this year's exhibition.—Although the weather was unfavorable, the show, in every department was good, and in some, superior to that of any former occasion. The crowd of interested and gratified spectators was unusually great, yet, as might be expected, from the character of our population, and the judicious regulations of the committee of arrangement, the whole business was conducted with much spirit, regularity and despatch.

HORSES.

There were twenty-one stallions entered for premiums, from which the committee selected the following as most worthy; and on their recommendation, the board of directors have awarded the following premiums:—

Hamilton Vankirk, best blooded stallion for saddle, for "Salem," - -	$10 00
Dr. James Stevens, 2d best do. "Young Windflower," - - - -	7 00
Paul Harshey, 3d best do. "Young Consul,"	4 00
Jeremiah Emery, best blooded stallion for draft, "Grey Diomede," - -	10 00
William Gabby, 2d best do. "Fox Hunter,"	7 00
Michael Leatherman, 3d best do. "Irish Grey,"	4 00

In addition to these, there were many fine animals on the ground; particularly the handsome full bred horse "Sir Solomon," owned by Mr. H. Lazier, of Morgantown, Va. and the two very fine blooded horses ("Oscar" and "Wild Medly") owned by Dr. M'Cook, of New Lisbon, Ohio.—These, of course, were not competitors for premiums, as they are not owned by citizens of the county. The committee say of these—"they are among the best horses ever exhibited here." The company horse "Windflower" Mr. Emery's Arch Duke, and Mr. Moninger's "Bashaw" were also present.—These horses are already advantageously known to our breeders, but were not in competition, having at previous exhibitions drawn the society's first premium.

It is perhaps worthy of remark here, that at the organization of this society, there was not owned or kept among us a single full bred horse, whilst now we can enumerate a number of thorough bred horses owned or kept in the county, whose colts now begin to gratify the eye, and fill the pockets of our enterprising and judicious breeders. This result has most certainly been produced, principally by the operations of this Institution.

BROOD MARES AND SPRING COLTS.

About 50 mares and 20 colts were presented for premium, from which the following were selected:—

John H. Ewing, Esq. best brood mare for saddle, (chestnut,) - - - - - - -	7 00
Dr. James Stevens, 2d best do. (Bay Shylock,)	5 00
William Vance, 3d best do. (Bay Godolphin,)	3 00
Robert Officer, best brood mare for draft, (roan,)	7 00
Samuel Nichol, 2d best do. (brown,) -	5 00
John Morgan, 3d best do. (dun,) - - -	3 00
Henry Vankirk, best spring colt, (Dun Windflower,) - - - - - - -	4 00
Jonathan Martin, 2d best do. (Bay Bashaw,)	3 00

There were many fine mares shewn, and the committee had some difficulty in selecting from amongst the best, those to which premiums were awarded.—Amongst the draft mares, they notice "a large grey owned by Robert Stockton, (rather too heavy in movement;) a well formed brown, owned by Lot Colvin, (somewhat under size;) also a grey belonging to James Dinsmore, and one of the same colour owned by Isaac Biddle; all of which they consider valuable animals."

BULLS, WORKING OXEN, AND FAT CATTLE.

Five bulls were exhibited, all worthy of notice.—Many of the younger animals of this class, bid fair very soon to rival their sires in point of size and form. "Nonsuch," as usual, was on the ground, but not as a competitor for premium.

There were six yoke of working oxen, and certainly better never graced the field than those presented at this time.

The beef animals did not by any means equal the expectation of the committee. This may, however, be accounted for, in some measure, by the unusual drought during the summer, which deprived them of the benefits arising from fine pasturage.

The Committee awarded the following premiums, viz:—

William Patterson, (ten mile,) best bull, -	$6 00
Robert Officer, 2d best do. bull,—discretionary, - - - - - -	2 00
William Quail, best yearling bull, - -	4 00
J. & J. Strain, 2d best do. - - -	3 00
Benjamin Lindley, best yoke oxen, - -	6 00
William Chambers, 2d best do. - -	4 00
John Graham, 3d best do. - - - - -	2 00
Lewis Hewit, best beef animal, - -	5 00
J. & J. Strain, 2d best do. - - -	4 00
J. & J. Strain, 3d best do. - - -	3 00

COWS, HEIFERS AND CALVES.

The show of these animals was greater than usual, and certainly superior to that of any former year.

The committee speak in high terms of the stock of Messrs. Reed, Chambers, Strain, Le Moyne, Quail, Anderson and Mashman, and inform us that "more than three-fourths of the animals exhibited, were descendants of "Nonsuch," a bull of the *improved Short Horn breed*, and close their report by expressing their gratification in observing the very evident improvement that has taken place in our stock of cattle within the last few years."

The Committee award the following premiums, viz:—

Richard Sproat, best cow, - - -	5 00
William Quail, 2d best do. - - -	4 00
John Wolf, best yearling heifer. 18 months old, (weight 952 lbs. - -	4 00
Dr. R. R. Reed, 2d best do. - - -	3 00
Dr. R. R. Reed, best spring heifer calf, -	3 00
John Scott, Sr. 2d best do. - - -	2 00
Alexander Gordon, best spring bull calf, -	3 00
William Quail, 2d best do. - - -	2 00

Error.—The words *Nigo Recio* wheat, in a note from a correspondent, in the 32d number, should have been Trigo Recio.

Prices Current in New York, Nov 6.

Bees-wax, yellow .20 a 22½. *Cotton*, New Orleans .12 a .13½; Upland, .10½ a .12½; Alabama, .11 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean —— *Flour*, N. York, bbl. 5.19 a 5.25; Canal 5.31 a 5.50; Balt. Howard st. 5.50 a ——; Rich'd. city mills, 5.75, country, 5.25 a ——; Alexand'a, 5.25 a 5.37½; Fredericksburg 5.12½; Petersburg, 5.25 a ——; Rye Flour, 3.62½ a 3.75; Indian Meal, per bbl. —— a 3 25; per hhd. 14.50 a 15.00. *Grain*, Wheat, North, —— a ——; Vir. .98 a 1.04; Rye, North, 65 a —; Corn, Yel. Nor. .60 a 61; Barley, — a 61; Oats, South and North, .26 a .36; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.50 a 8.00; prime 5.00 a 5.25; cargo 4.00 a —— Butter, N. York, 12½ a 16; shipping, 8 a 10; Lard, .10 a .—; Pork, mess bbl. 14.00 a 15.50; prime 10.00 a 11.00; cargo ——.

Prices Current in Philadelphia, November 6.

Bees-wax, yellow .21 a .22; *Beans*, bushel .75 a .80. *Beef*, mess 10.00 a 10.50, prime 8 a 9, cargo 7; *Butter*, No. 1, 7½ a 8, No. 2, 6. a 6½; *Cotton*, New Orleans 12½ a .14; Mobile 12 a 13; Tennessee 11½ a 12½, Alabama 11½ a 12½; *Feathers*, South. .36 a .—, West. .36 a .—; *Flax* .6 a .7. *Flour*, sup. 5.,12½ fine, 4.87½ a —— Rye 3.50 a —— Corn meal, hds. 13.00 a ——, bls. 2.90 a 3.00; *Flaxseed*, cask ——; bu. 1.30 a 1.32; *Grain*, Wheat .95 a 1.00 Rye 55 a 56, Corn l. c. white, 54 a .55, l. c. yellow, 54 a .56, u. c. round, 58 a 60; Oats .30 a .31; Barley, Pa. .60 a .62; do. East. 62 a 65; black-eyed Peas .40 a .50. *Hams*, Jersey 11. a 12½, Virginia 10 a 11, Western .10 a 10½. *Hemp*, 220 a 225; *Lard*, .10 a .12; *Oil*, linseed, 83 a 65. *Pork*, mess, —— a 15, prime 13. a 13.50; cargo 11.50 a 12. *Rice*, 3.— a 3.50; *Tabacco*, Kentucky .3½ a .6, Vir. .3 a .5; *Wool*, common washed lb. .40 a .45, half blood .45 a 50, three quarters blood .50 a 55, full blood 58 a .60; unwashed, generally 10 cents less, according to quality.

FARM STOCK FOR SALE.

Will be sold on Tuesday, the 16th November, 1830, at Griffith's tavern, 3 miles from Baltimore, on Reisterstown road, some valuable Farm Stock; consisting of five *Young Mules*, well broke to work; three *Mares* and two *Colts*, four young *Bulls* of the Durham short horned breed; two Full bred Bakewell *Rams*, and six *Cows*. Sale to commence at 11 o'clock.

November 12, 1830.

FRUIT TREES, &c.

The subscriber has on hand a stock of the following trees for sale at his nursery, viz.

Apple, Pear, Peach, Cherry, Plum, Apricot, Filbert, Spanish Chestnut, Gooseberries, Currants, Grapevines, Strawberry, &c. Ornamental trees and shrubbery, consisting of Elm, Catalpas, Horse Chestnut, Weeping Willow, Maple Roan tree, Poplar, several sorts. McClura Shumac, English Ash, Weeping Cherry, Garden and China roses, &c. &c.

White mulberries for silk-worms.

With a choice collection of green-house plants, all which he offers for sale, on accommodating terms.

All orders will be punctually attended to, if left with G. B. Smith, or at the nursery, near the toll gate, Frederick road, Baltimore. S. FEAST.

MASON'S FARRIER.

A new edition of Mason's New pocket Farrier, greatly improved, for sale at the office of the American Farmer, price $1 50. Also,

HINDE'S FARRIERY,

A new and excellent English work, with notes and additions, adapting it to this country, price $1.00.

NOTICE.

Eliphalet Easton, who sometime since acted as agent for the American Farmer in the Western country, Ohio, Kentucky, &c. is no longer authorised to act as such. All persons are therefore cautioned against paying him any money on account of the American Farmer.

I. IRVINE HITCHCOCK & Co.
Proprietors American Farmer.

☞ The National Republican and Liberty Hall, Cincinnati, Kentucky Reporter, Lexington, and the Wheeling, Virginia, Compiler will please copy the above one time.

AGENCIES.

The Subscriber is agent for the following persons, and all orders directed to him, or left at his Agricultural Warehouse and Seed Store, No. 36, West Pratt street, Baltimore, will be promptly attended to.

Viz. for Messrs. Walker and Hammond's Iron Foundry, where all kinds of *Castings* can be had, equal to any made in this country, and on reasonable terms.

Also, for Messrs. Peirson and Walker, manufacturers of all kinds of *Spindles* for factory use, these will be warranted equal or superior to any ever before made in or imported to this country.

Also, general agent for Messrs. D. & C. Landreth's Seed and Horticultural Establishment at Philadelphia.

Also, a general assortment of Agricultural Implements on hand as usual, &c. J. S. EASTMAN.

He is also agent for the Messrs. Robbins's improved *Corn Planter* for planting or sowing all kinds of seeds; can furnish the machines or dispose of the patent right.

☞ All orders promptly attended to.

FRUIT TREES.

I have on hand, as usual, a quantity of fine young Fruit Trees for sale, on low terms, such as Cherries, Apricots, Plums, Peaches, Nectarines, Prunes, Pears, Figs, &c. &c. JOHN WILLIS.

Port of Oxford, near Easton, Md. Oct. 26, 1830.

BALTIMORE PRICES CURRENT.

Baltimore Market.—Flour and wheat have declined a little, the wagon price of Howard street flour being $5. It is apprehended that some little injury will have been done to farmers on the Eastern Shore, by a report current there last week, that wheat was selling in Baltimore at $1.50. No such price has been given, and our subscribers may rely upon the accuracy of our reports of the markets. Beef is plenty and dull: Some few sales of stock and quite ordinary cattle have been made as low as $3 00; but our quotations embrace fair rates for market beef.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 441 hhds. Maryland; and 9 hhds. Ohio; total 450 hhds.

Flour—best white wheat family, $5.75 *a* 6.25—super. Howard-street 5.12½ *a* ——city mills, 4.87½ *a* 5.00—Susquehanna, ——; Corn Meal, bbl. 2.25 —Grain; red wheat, 95 *a* 1.00; ——white do. 1 05 *a* 1.07—common red ——Corn, white, .54 *a* .55—yellow .56 *a* .56½——Rye, .54 *a* .——Oats, .29 *a* 30 Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 6.00 *a* 6.50 Timothy, 2.25 *a* 2.75—Orchard Grass, 1.25 *a* 1.50—Herd's, — *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½ Flaxseed —— *a* —Cotton, Va. 9½ *a* 10½--Lou. 11½ *a* 13½ —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 10 *a* 13-Whiskey, hhds 1st p. .30 *a* —; in bbls 31 *a* 32——Wool, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.50, *a* ——No. 2, —— *a* 6.00—No. 3. 3.62½ *a* 3.75-Bacon, hams, Balt. cured 10c.-Feathers, 34 *a* 35--Plaster Paris, cargo price per ton, 4.25 *a* 4.31¼ ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 3.50 *a* 4 50—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—Hickory, $4.50.

Agents for the American Farmer.

The following persons are authorised to act as Agents for the American Farmer in their several places of residence:

Boston,	John B. Russell, *N.E. Farmer Office.*
New-York,	J. H. Gourlie, *at the Post Office.*
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General Agent for the State of Maryland, T. B. Brenan.

☞ All Postmasters are requested to act as agents for the Farmer; they are authorized to retain $1 for each new subscriber, and 10 per. cent on *all other* collections.

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AGRICULTURE.

SUGAR CANE.

The Agricultural Society of Baton Rouge.

REPORT OF THE COMMITTEE.

Our Society having received the Circular of the Secretary of the Treasury, in reference to the cultivation of sugar-cane, met on the fourth instant, and appointed a special committee to take it into consideration.

The report of your committee is contained in the following letter, which they first propose to address to the Secretary of the Treasury, and afterwards to give to the public, both in French and English, through the medium of the Baton Rouge Gazette.

Baton Rouge, La. Sept. 25, 1830.

The Agricultural Society of Baton Rouge, Louisiana, to his Excellency S. D. Ingham, Secretary of the Treasury, at Washington City.

Sir,—About the middle of last month, we received the Circular, dated the 1st of July, which you addressed to us, on the cultivation of the sugar-cane.

We have examined with all possible attention the queries which it contains, and to the best of our ability, have endeavoured to resolve them.

In his Circular of the 25th July, 1829, Mr. H. H. Gurley, our late representative to congress, proposed twelve queries on the cultivation of the sugar-cane, to which we replied on the 25th September of the same year. As several of these queries, particularly the 1st, 2d, 4th, 6th and 7th, have nearly an equal bearing with the numbers 8 and 9 of your circular, to avoid repetition, we have thought proper to send you, together with this. the Baton Rouge Gazette of the 26th of December, 1829, in which will be found the queries of Mr. Gurley, the report of a special committee appointed thereon, and in support of that report, our letter to Mr. Gurley, dated the 26th of September, 1829.

We wish you, however, to observe, that at the time we replied to Mr. Gurley, and precedent to our rolling season, (which commences only about the 1st of November) *deceived* by the abundant and extraordinary crop of the preceding year, 1828,—a year unexampled and probably never to be equalled in this country—we magnified the produce, passed superficially over many expenses, and considered as naught the almost annual accidents caused by cold and frosts, by violent winds, tearing up the cane by the roots—by droughts, or heavy and successive rains, by the first of which its quantity is diminished, while the latter greatly impair its quality—and, finally, by the giving way of our embankments, and the consequent inundations, the ravages of which are sometimes felt for more than fifty miles.

Astonishing and extraordinary instances of the plentiful crop of the year 1828, in certain portions of the country, have been triumphantly produced, and rumour has lent its aid in giving them due circulation. Of this we are shewn an instance in the crop of the Ransons (brothers) residing in the parish of St. Charles, which amounted to 680 hogsheads; another in that of Mr. Joseph Sauniac, of the parish of Jefferson, who made 920. Yet, notwithstanding these and other partial and plentiful crops, the mean produce of the year 1828, did not exceed one hogshead per acre.

In 1829, the sugar crops amounted to but one third, or a little more than a third of those in 1828; a fact, the truth of which you may have ascertained, sir, by comparing two statements of the produce of the years 1828-9, drawn by Mr P. A. Dejelos, of New Orleans, which have been published, and with which you are no doubt fully acquainted. From these statements, it appears that, in the year 1829, the produce of the parish of St. John the Baptist, situated on the left side of the river, amounted only to 1948 hogsheads, instead of 4453, its quantity in 1828; that St. Charles, on the same side of the river, made in 1829, 2925, instead of the 7446 of 1828; and that the parish of Jefferson, on the left bank of the Mississippi. produced in the year 1829, only 1840 hogsheads, while in 1828 it had made 6096. The same proportionate decrease will be found to prevail, sir, in most of the other parishes, or on the majority of the plantations. The crop of the same Mr. Sauniac, for instance, which in 1828, amounted to 920 hogsheads, dwindled in 1829 to 265! And finally, the better to contrast the unfavourable statement of the crops of 1829, with the happiest result in 1828, we see from the same schedule of Mr. Dejelos, a very correct work, and one truly deserving of recommendation as a statistical sketch, that Mr. Woodward of the parish of Iberville, who in 1828 had made 117 hogsheads, in 1829 had made only 6, and that the crop of Mr. Barker, residing in the parish of St. John the Baptist, instead of 330, his produce in 1828, in 1829 amounted to 12!—results truly deplorable, and in reality to be reckoned as naught.

The present year, notwithstanding the fair promise of its spring, evinces generally a moderate produce. The cane crops have received irretrievable injury from the excessive droughts of June and July; and we doubt whether the same number of acres, cultivated in 1828, will yield more than a half of 88,000 hogsheads, the amount of that year's produce. But this failure is in a great measure remedied by the innumerable sugar farms which have been since established.

We have already observed that the crops of 1828 in Louisiana, though so highly extolled, did not actually average more than one hogshead of sugar per acre, allowing one thousand net pounds to each hogshead. And in such a quantity of land, it is easy to conceive, sir, that there may be some, which. on account of the superiority or freshness of its soil, or from its being peculiarly favoured, will yield 2000 pounds and even more, per acre; while on the other hand, whether from its barrenness, its being worn out, or less advantageously situated, the same quantity of land will vary from 1000 to 500 lbs. and perhaps more. By this we can safely say, that the greatest produce of the most favourable year in Louisiana, exceeds not an average of 1000 lbs. nett weight, or one hogshead of sugar to the acre; whereas in the West Indies and other countries, where cane can be cultivated and sugar manufactured throughout the whole year, an acre will yield from 5 to 6000 lbs. It should be moreover recollected, that in this country, there are often on the same farm, portions of land differing essentially in soil, the produce of which both as regards quantity and quality, will bear the same disproportion. And thus, whether from some such local inferiority in the land, or because the cane being left standing to an advanced season, had become injured by the frost, the price of sugar from the same farm and in the same year, may decline 50-00, that is, from 8 and 6 to 4 and 3 cts. the pound.

If to these evils, we add the unfavorable seasons, and innumerable expenses, which the sugar planter must inevitably incur, every impartial man will confess, that the income of that planter, of one, who unlike the European land owner, is unable to let his property, and is obliged himself to till his land, to devote his whole time to servile drudgery, to lead a rude, solitary and monotonous life; who employs slaves purchased at an exorbitant price, and who are ever exposed to the fatal diseases of the climate, every impartial man will confess, we repeat, that the income of this planter, whose life at the best, is far from being enviable, does not by any means justify the representations of those who would feign believe them just.

We have before us an authentic statement of the net and gross income for five years, from 1824 inclusively to 1828, of one of the best and most extensive establishments in our neighborhood—an establishment on which there are annually 300 acres of cane in cultivation, and which the proprietor might have sold on credit, ten years ago. He now regrets not having sold it for $150,000, including more than a hundred negroes of different ages. From this correct statement, in which we have made no deduction for the loss of several negroes, who have fallen victims to disease, we find that the net proceeds of $33,000 for five years, afforded annually a mean income of 6 30-60. Numerous other statements could be produced equally exact and correct with the following of which we have given you the detail.

Gross proceeds.		*Expenses.*	*Net proceeds.*
1824	$ 4330	$3831	$ 499
1825	11705	4975	6730
1826	10669	4392	6277
1827	14694	3028	11666
1828	12819	4944	7875

Thus the net proceeds of $33047 will be found to afford an annual income of $6609, which is equal to 6 3-5 00.

If, then, of three years, the first 1828, presenting an excellent net revenue of - - 8
Another, 1829, a very favorable year, the income of which amounts to only - - 8
And the third, 1830, affording expectations of a moderate crop, and a probable income of 6
Total, 18

We take a third, the consequence will be that sugar in Louisiana, is found to yield at the highest calculation, only a neat income of 6-00. A calculation, sir, which tends greatly to lower the exalted condition of sugar planters; of men who have borrowed from our banks, or elsewhere, at the annual rate of 10 per cent.; and a result, which in a country, where such is the fixed rate of interest, offers but few inducements to cautious and foreign capitalits, who hold nearly all those immense sums located in bank stock, or committed to the charge of brokers; in fine, a result, which for the payment of the dividend and interest, subjects us to annual or semi-annual exportations of our moneys, drains Louisiana, and places her forever in dependence on foreign capitalists.

In the above statement we have said nothing of numerous other accidents to which the sugar planter is peculiarly subject; we have made no allowance for those rapid changes of the weather about the 15th of November; those violent gusts of wind so prevalent in this climate, and sometimes felt throughout the whole country, and at other times only by a few parishes, and in particular situations.

From the clear manner in which we have explained it to Mr. Gurley, in our letter to that gentleman, of the 26th of September, 1829, you will readily apprehend, sir, with such unfavorable crops, and exposed as we are, to such numerous discouraging accidents, what fatal consequences to the interests of Louisiana, would ensue from the slightest reduction of the duty of three cents on foreign sugar. It is easy to predict, sir, that she would never recover from the blow.

Our planters, have, no doubt, been as inconsiderate and injudicious in encumbering their property with mortgages and extensive loans, for which they are subjected to a high interest, as they have been false in theory, in supposing that a few successive good crops, would entirely exonerate them. But, sir, the impulse once given was spontaneously pursued. The evil has begun, and every day adds to its extent. Nearly all the property in Louisiana, has been converted, or is daily becoming transformed into sugar farms, under the sole, firm and natural belief, that the duty on foreign sugar would be maintained, as a just reward and merited encouragement to our fellow citizens of Louisiana, Georgia, South Carolina, and Florida. The consequence of this transmutation of property in Louisiana, will be, that *her* annual produce alone, even in the most unfavourable year, will more than suffice for the consumption of the United States. Thus will the price fall of itself, to such a degree that were the duty not repealed, the introduction of foreign sugar, by tending to the loss of the speculator, will be rendered utterly impracticable.

Let not congress then *precipitate* the fall of its fellow-citizens of Louisiana, Georgia, South Carolina, and Florida. Let it only trust to the ordinary progress of time, and in a few years, sir, the reduced price of sugar, caused by its surplus over its consumption, will be equivalent to a repeal of the duty of three cents—Then, and with this hypothesis before them, will those who have made loans, be enabled to liquidate, or at least, to diminish considerably their debts.

After the preceding preliminary and indispensable introduction, we shall now in consequence proceed to the investigation of your inquiries.

1st. The names and description of the several species or varieties of sugar-cane, with a ,statement of their habits and qualities, as to soil, climate, &c.

Answer. The sugar cane, *Saccharum,* may be classed under the triandria-digynia of Linnæus. In the East Indies this plant grows in a wild state. Formerly, small quantities of it were raised in the southern part of France, and in Spain, but the expenses being found to exceed the produce, its cultivation was entirely abandoned. Its introduction into Louisiana, twenty-five years ago, has been attended with due success; but owing to the severity of our autumns and winters, it has never come to such maturity as to produce seed. The roots of the cane are knotty, and bear five or six suckers. The plant itself, grows to the height of six or ten feet, according to the quality of the soil. From the joints, growing at equal distances on the stock, extend to the length of three or four feet, smooth blades, the edges of which are somewhat denticulated, and so formed as to represent a deep furrow of an albugineous color.—There is no cup to its corolla, but in its stead are two oblong pointed and concave valves covered with beard. Its flower is adorned with three very delicate stamina, encircling two rough styles, on the summit of which are its generating apices. Besides this kind, which is considered peculiar to Louisiana, and thence termed *creole,* other species of cane, such as Otaheita and Ribbon have been introduced among us. The creole cane, however, is generally preferred, although the *ribbon,* (so called from its variegated and striped rind) is of an earlier and higher growth. But these qualities are in a measure cancelled by its extreme hardness.

A few years ago, our Society received from the island of St. Thomas, some seed of the sugar-cane, which were planted, but notwithstanding all their precautions, never came up. The only method, then, to propagate the cane is to plant the stock itself, at the termination of autumn. It sprouts at the joints and comes up at the commencement of spring.

2d. The highest latitude and coolest temperature in which the sugar-cane produces seed?

Answer. The warmer the latitude the better the cane matures and goes to seed, and it is our belief that it never produces seed capable of generation, above the 21st degree of latitude.

3d. The best method of preserving the vegetating principles of cane-cuttings on a long voyage?

Answer. Within our own knowledge, cane-cuttings by being packed in boxes of very dry sand, so as not to touch each other, and with their ends hermetically closed up, have been carried from Louisiana to France in a perfect and sound state.

4th. The latitude and temperature of the coldest climate in which sugar-cane has been advantageously cultivated?

Answer. It was only a few years ago, believed that the establishment of a sugar farm above the latitude of 30 degrees and 10 or 15 minutes, was deemed a hazardous enterprise. We were justly alarmed at the severity of autumn and winter, the weather at those seasons being sometimes six degrees below zero, according to Reaumur, or eighteen, and even more of Fahrenheit. But time has served to embolden us. Sugar-cane has already been cultivated to advantage near the 31st., and we entertain little doubt of its extending in a few years, as far as the 32d degree of latitude, and this point will certainly be its *ne plus ultra.*

5th. The best mode of cultivating the cane?

Answer. This depends entirely on the different situations. In a latitude where cane can remain standing without injury, and sugar manufactured throughout the winter, the seasons for ploughing the land, planting and rolling up the crop, must differ essentially from ours. The preservation of our crop demands that we commence cutting the cane about the 1st of November, that we be constantly conveying it to the mill, and grind it as soon as possible. Our lands are ploughed and planted in December and January, in order that the cane may profit from the genial warmth of the spring. When the plant is young, great exertions are required to preserve it clear of all noxious weeds, from which, as soon as it becomes two or three feet high, it is enabled to protect itself.

6th. The best method of making sugar from the cane?

Answer. The only method hitherto employed for the manufacture of sugar in Louisiana, has been, to extract the juice from the cane by means of strong cylinders, carried round by horses. This juice is passed into large boilers, where it is submitted to the action of heat, and is kept in constant ebullition. By the application of a small quantity of lime, it then becomes cleansed and purified, after which it is permitted to cool, and acquire a grain in vats constructed for that purpose.

7th. The latest improvements in making sugar from unripe cane; noting the advantages and disadvantages.

Answer. Two foreigners arrived in Louisiana, one at the end of last year, and the other about the commencement of this. Both claimed the honor of having invented a more expeditious, economical, and in every way, a better method than ours to clarify the juice, and to make sugar of the molasses. One of them attempted a few experiments on a small scale; but, as, in order to decide on the merits or demerits of the invention, we must look for more extended operations, we can draw no conclusive inference.

8th. The average quantity of sugar which may be made from a given quantity of land, of proper quality, in the various places in which cane is cultivated?

Answer. Our reply to the 7th query of Mr. Gurley's circular, shews that with a tolerable soil, and in a favorable year, one acre of cane in Louisiana, will produce 1000 net pounds, or one hogshead of sugar. But sugar-cane, on account of its numerous roots and its strong vegetating power, soon wears out the richest soil.—Even our alluvial lands on the banks of the Mississippi, inferior, perhaps, to none in the world, and planted for twenty years past with cane, have become nearly worn out. When, moreover, we recollect the misfortune of unfavourable seasons, it will be immediately perecived that much remains to be deducted from this calculation of 1000 pounds of sugar per acre. It has been proved above that the mean annual produce of three and five years, amounted to six per cent. or 600 pounds of sugar to every acre, but the annual expenses still remain to be deducted from this amount of 600 pounds.

9th. The number of hands required to cultivate a given quantity of land planted with cane, and to perform all the labor necessary in the manufacture of sugar in the different places where it is made; and the estimated expense of making a given quantity and putting it up for market in each or either of these places, including boxes, casks or hogsheads?

Answer. In answer to Mr. Gurley's 4th query, we stated that one hand was sufficient to cultivate and manufacture five acres of cane, and immediately after the first of the same gentleman, is a detail of the annual gross produce of that hand, amounting to $297 50. In reply to his 2d query, a deduction has been made of the expenses incurred annually by said slave, (or upon five acres of cane,) including overseer's and physician's wages, the purchase of horses, &c. all of which were estimated at $105. It will be therefore seen, (note B.) that there remained to each hand the annual net produce of $192 50. But from observations later, founded upon experience, and from the facts contained in this letter, we declare that the sum of $192 50, stated to be the net produce of one hand, can have reference only to the abundant year of 1828; that according to more recent and exact calculations given you above, we are justified in deducting two-fifths, and that thus the mean net produce of one hand on a sugar farm in Louisiana, for the space of ten, or at least of five or three years, annually amounts, at the highest calculation, to 120 dollars.

10th. The best method of refining sugar?

Answer. Little information can be obtained on this subject in Louisiana. There are but two or three refiners in the state. Their process is about similar to that of the Hamburg and English refiners; but the sugar is of a much inferior quality.

From what has been said, we still infer, sir, that the slightest reduction of the present duty of three cents on foreign sugar, would cause the total overthrow of all the fortunes in Louisiana.

We will make but one remark more, but one of importance to the interests of the Union. It is this—that the abatement or repeal of the duty on foreign sugar, after having promoted the ruin of Louisiana and the destruction of her sugar farms, a product best adapted to her soil, and which assuredly alone repays the planters for the sums he has advanced and the labours he has undergone, would immediately tend to the interest of foreign commerce, and particularly to that of the Havana merchants, who form our chief supplies, and who, having nothing more to fear from a competition with us, would exercise at their will, an unlimited monopoly, which would be more burthensome to the consumers of sugar in the United States than the present duty, which moreover tends greatly to the promotion of our finances. Let us, moreover, remember that in case of an external war, the blockade of our ports would deprive us of a commodity now become absolutely indispensable. By the repeal or reduction of the duty on sugar, the United States would then be exposed to certain loss and danger.

We remain, sir, with great respect, your most humble and obedient servants,

(Signed) P. Hickey.
President of the Agricultural Society.
J. Debellievre, *Secretary.*

Baton Rouge, Sept. 25, 1830.

The Society unanimously adopt the Report of their special committee. It is, therefore, resolved that the letter, signed by the President and Secretary, be forwarded to the Secretary of the Treasury, and afterwards published in French and English in the Baton Rouge Gazette; that all documents in relation to the Circular of Mr. Gurley, and our Report of the 26th September, 1829, be re-printed.

(From the Newark Ohio Gazette.)

EXHIBITION OF THE MUSKINGUM AGRICULTURAL SOCIETY.

"It is a common, and we believe true remark, that there has been a general want of enterprising and scientific husbandry, among the farmers in this section of the country. The fault is necessarily incident to our interior situation, and the want heretofore of a ready and extensive market for the productions of the soil. That cause is now obviated by the progress of our excellent system of internal improvements. The extension of inland navigation through the heart of our fertile county has opened to the products of this region, the extensive markets of the east and the north. This new stimulus will communicate to the agricultural interest an unwonted and powerful impulse, and render it an object to the farmer, to seize and adopt the passing improvements of his useful and honorable art. We hope that all means tending to an object so intimately connected with the general prosperity, will be sought after and diligently improved."

We add the following extracts from the reports of the different committees, on the above occasion.

"There were many fine brood mares exhibited, all of which give tokens of a future goodly breed of horses in our country, and we should but gratify our individual feeling by speaking of each."

"*Neat Cattle.*—The committee beg leave to report: That on arriving at the pens in which the cattle for the inspection were placed, and taking then but a general view of them, we were induced, almost to the exclamation—here is additional conclusive testimony of the great benefits to be derived from Agricultural Societies. For it is well known that at the formation of this institution the breed of neat cattle in this section of our country, was, generally, very inferior. It has, however, through the instrumentality of this association, been since gradually improving, and the exhibitions of this day, authorise us to say, that we now have a stock of neat cattle, equal to any in the Union, and superior to any west of the Ohio river."

"The stock of neat cattle this day presented, afford the pleasing and satisfactory assurance that Ohio can, and will ere long, succesfully compete with, if not excel her eastern sisters in this important department of husbandry."

"*Swine.*—The committee on swine, report: That they have with pleasure and attention examined the number of fine hogs exhibited, and as they were generally of the Bedford breed, (which is considered the best,) your committee had to decide the superiority as to the largest and heaviest. They have accordingly given the preference to the two shoats, exhibited by Mr George W. Gibbons.

"The Bedford breed of hogs your committee would recommend to the farmers in general, as they are larger, make better bacon, and require less grain to fatten them, than any other breed whatever."

"*Implements of Husbandry.*—The committee appointed to examine the 'implements of husbandry' beg leave to report: That they have examined two thrasing machines in operation.—One 'Warren's patent,' presented by Munroe and Neal, the other Allen's improvement, presented by James Guthrie of Knox county; both machines did their work well and cleared the wheat from the straw; it is believed that from 2 to 300 bushels per day may be thrashed with the aid of one horse.—The machine presented by Munroe and Neal is most simple in is construction and least liable to get out of order, and has the advantage over the other of leaving the straw unbroken and rubbing off the white caps—we therefore give the decided preference to Warren's patent."

HORTICULTURE.

(From the Southern Agriculturist.)

On the Rot or Mildew of Grapes.—By George J. F. Clarke.

Dear Sir,—A formidable enemy of our grapes, known under the several denominations of blight, rot, mildew, &c. has long drawn my attention to its cause and its remedy. I now believe I have arrived at the first, and that the other follows as a very simple one. Perhaps I ought to defer this communication, until I had demonstrations to offer as conclusive as that required by the apostle Thomas, who to confirm his other senses, must probe the wound with his finger—nineteen-twentieths of mankind require similar evidence on the invasion of every old practice. But to effect this, though I have many proof subjects in progress, it will require perhaps two or three years more; agricultural experiments you know, are slow and in the mean time the whole may be lost. I want this much recorded, for I feel a particular national interest in our having something to teach our Eurepean friends, in their most boasted article of culture.

This disorder is not confined to any particular varieties of this valuable fruit, though some are more readily and largely susceptible of its ravages. In Florida, and we hear that in all North America, it frequently occurs. It is sorely felt in many parts of Europe—probably in all countries where the same systemised outlines of its propagation are so uniformly followed; and certainly so in those subject to long intervals of early drought. Agricultural man never dug the ground deep for pleasure or pastime; he sought no farther when he found his wants supplied near the surface; he is content to take all there as sterling, while he often seeks in theories and the moon for what lies, in fact, just below his feet, as I conceive in this case—a cause whose effects produce the cause of this disorder.

Public opinion, (no wizzard in natural philosophy,) attributes it to humidity of the atmosphere; the proximity of the fruit to the ground; prevalence of noxious winds; density of foliage; worms at the roots, and other equally unexamined causes. I contend that its origin lies in a want of depth in the roots of the vine, which generally arises from the mode of planting them. But I must stop here to premise—

First—I must presume it not generally known, when I have never met with a word on the subject, that the vine is propense to forming a deep and strong tap-root of great importance to its well being. And though acquiring this with peculiar rapidity, is yet too slow for the approaching heat and drought of summer so immediately after planting the cuttings in the spring; by which its descending bud is overtaken and paralysed, and in its next effort to descend breaks out into small branches that never go deep. This tap-root, when not interrupted in its progress, goes to a depth sure of a constant and bountiful supply of water. And so superior is its growth when undisturbed, that it will thicken in a season to nearly the size of the end of the cutting from whence it sprung, issuing from between the bark and the wood; while the side roots, protruding through the bark at the joints, will be but fibres for years. This is the reason why I have said in a former number, on the culture of the vine, "immediately before putting down the cutting, slice off slantwise a piece of its lower end, in order to bring the weeping wood in contact with the earth." Its disposition to throw out this root is soon lost by the end of the cutting being permitted to dry.

Secondly—The tap-root of such plants as are disposed to shoot a very deep one, is of as much general importance to the tree as all the rest, though not containing in its diametrical size, at its junction with the plant, a proportion of more than one to ten, with the aggregate of the rest. These remarks, I am satisfied, hold good with respect to both our grape and orange plants; and I believe every other that nature destined for the sub-soil. When they lose this valuable root they learn to live without it, as we do with the loss of a sense or a limb. But they lose vigour, and are ever after liable to severe injuries from comparatively slight casualties.

Thirdly—From the middle of May to that of June, we experience the hottest season of our year, because then the most dry, and the least favored with sea breezes; which brings on a trying drought that penetrates the earth to a considerable depth, of which we form no conception by the appearance of the surface.—This will be, for three or four inches, adhesive enough to lay on a spade in digging holes, while below, for twelve or eighteen inches more, it will run off the spade like dry ashes—I have preferred a calabash to bail it in some situations.

Fourthly—Excepting in my garden, we have not cultivated grape vines otherwise than on arbors seven or eight feet high, and we have planted them as follows: 1st, A cutting three or four feet long is trailed in a trench eight or ten inches deep, and one end of it bent up to a little above the ground. 2dly, A cutting ten or twelve feet long is trailed in the same manner, with both ends turned up to make two plants. 3dly, A limb is brought down from the arbor, and a bent of it inserted in the ground in the manner of a layer; and after it has taken root the intermediate part is cut away or cut off from the mother vine and buried in the same horizontal position. Here, then, it is evident that the second method never afforded the cutting an opportunity of sending out a tap-root, as both ends were turned up to make foliage. And the first and third were too superfically placed to effect a deep location, considering the drought so close at hand.

Now, sir, to the facts. I have reference to this city, where many yards and gardens have arbors. This epidemic happens late in May or early in June, when the grapes are nearly full grown. Its visitation is not every year. Its arrival is shortly after a heavy shower, that terminates several weeks of drought which prevails only about that season. And the extent of damage is in proportion to the measure of the preceding drought. Just before the rot manifests itself, there is an unusual increase notable in the size of berries. The disorder, as far as it extends to the rotting of fruit, is soon over and does not recur, however the rains may continue. The portion of the fruit that remains progress to maturity, but do not do well. The foliage at the same time shows a sickly appearance: and when rains become frequent, though the vine puts out other and longer branches that are wholesome, the leaves that met the attack never recover their wonted and healthy appearance. We have no such drought or rotting of grapes at other parts of the year.

All our vines, as I have stated, are shallow rooted, and all with their fruit suffer from this sickness, excepting such as have got close under a wall, that protects the earth about them from the action of the sun: such as grow contiguous to kitchen windows, where water and slops are frequently thrown out, or near a well where there is splashing and spilling and what conspicuously appears, is that in several instances, where the washing and all the kitchen work, excepting the cooking, is done under the arbour, for room and coolness, and the slops and rinsings thrown under feet, for shortness, neither the vines or fruit partake of this disorder.

I will remark here with respect to the humidity of the atmosphere, and the proximity of the fruit to the earth being in fault, that I had this year several young and healthy vines under culture on poles, in the vineyard form, the lower fruit of which hung within fourteen inches of the ground, these escaped and had large fruit, while many others of the same character and situation, and others again on arbours eight feet high, were nearly all lost. The difference was, that those which saved their fruit had each a young ingraft growing in their side just below the surface of the ground, and with a view to these they were watered about twice a week during the drought. As to noxious winds, unless we suppose them possessing discriminating powers, we had as well say nothing about them. The density of the foliage—I am not sure that this does not accelerate the evil after it has begun, but it is not concerned in the cause of it. Worms at the root of the fruit have no part in it—I have searched them closely.

The facts, then, show that the drought brought on excessive exhaustation; and that the shower ending that drought, excessive impletion—or in other words, the over thirsty plant overdrank itself. The same thing kills or sickens men and horses—nay, where is there a sudden transition from any excess to its opposite, without injurious results? How many rational animals have suffered by the incautious use of aliments after great privations? And they are as necessary, consequently dangerous to plants as well as to men.

It farther appears that the vines I have mentioned, (and there are many of them,) as having enjoyed by fortuitous circumstances a supply of water during the drought, felt no cravings beyond a wholesome thirst; consequently they took but a wholesome drink from the otherwise fatal shower.

Not only grape vines are injuriously affected at this time, but every article of our fields and gardens that have not deep centre roots to pump up their supply of water from below the depth to which the drought has exhausted the soil, must, and we plainly see, do suffer from the same cause. Many planters think, when they see the leaves of their corn turn yellow, that the heat of the earth or air was increased by the fall of cool showers, until it burnt or scalded—it is frequently termed "firing the corn." But this is impossible, unless the ground was first covered with unslaked lime. Equally so, if we change it to a sudden transition from heat to cold—the heat is never great enough for that effect in an article without locomotion—besides, the same thing would happen in any very hot day in summer on the fall of a sudden shower. It must be from great exhaustion to great impletion, as it occurs but once a year, and then only when great exhaustion is present, and at its utmost stretch.

The remedy then is obvious and simple—water the vines, or plant them deeper. They will bear very deep planting I know, and thrive on it. In support of this latter, and far better alternative, pray attend to the following information.

A very intelligent friend informed me, a few days ago, that a Swiss, of his acquaintance, settled in Missouri, plants his vines thus: he digs a ditch the length of a row, and three or four feet deep, and at the bottom of this ditch he plants long cuttings, (eighteen or twenty inches,) a common depth below it. On the bottom of this ditch he scatters a little manure, and from time to time, as his vines ascend, (which they do most vigorously,) he fills in the surface of the ground with the poorest earth he can get, (to discourage the growth of side roots, we may reasonably suppose, but a matter of no importance to our text,) and that their success is surprising; and no rot or mildew is known among them. The ends of his cuttings must lay four or five feet deep.

The idea, Mr. Editor, of a plant over-drinking itself, may elicit ridicule, where observations or arguments are absent. I would, therefore, observe in anticipation, that this is but little mysterious when compared to the proven fact, that a drop or two of animal or vegetable oil, placed on the crown of a fig, will force it into maturity several weeks before its time—changing it in a few days from a small, hard and caustic, to a large, mellow and luscious morsel. We cannot comprehend this process, but every one sees that water is as necessary, consequently can be as fatal, to vegetables as to animals.

I have taken up and re-planted some bearing vines, from fifteen to thirty inches deeper than they stood, and intend doing so to many more, in order to their better being. These will, I trust, afford the doubting nineteen a plenty of room for St. Thomas's test.

Put arguments and comments aside, my text is practically this: *plant the vines deep enough, or water them well, and we are free from this rot of the fruit.* We are often deceived in watering in very dry weather—very little dampness near the surface, occasioned by the dews, will lead off, sideways, a more than double portion of water without any getting farther down. This has taught me to make two or three deep holes with a crow-bar, near the body of the plant, at such times; a good wetting once effected in this way, moderate supplies, without holes, will keep it so.

Permit me, sir, to make Mr. Herbemont, one of my very best bows of respect. I assure you it affords me much pleasure to find any part of my attempts on the vine approved by a gentleman of his intelligence and experience. May fortune still smile on our efforts, (a Frenchman and a Spaniard,) towards this article, susceptible of so much value to our adopted country—the land of free inquiry.

With respectful considerations, your obed't serv't,

GEORGE J. F. CLARKE.

(From the New England Farmer.)

PRESERVING CABBAGES.

Mr. M'Mahon recommends the following method for preserving cabbages, for winter and spring use. Immediately previous to the setting in of hard frost, take up your cabbage and savoys, observing to do it in a dry day, turn their tops downward, and let them remain for a few hours to drain off any water that may be lodged between their leaves; then make choice of a ridge of dry earth in a well sheltered, warm exposure, and plant them down to their heads therein close to one another, having previously taken off some of their loose hanging leaves. Immediately erect over them a low temporary shed of any kind that will keep them perfectly free from wet, which is to be open at both ends to admit a current of air in mild, dry weather. These ends are to be closed with straw when the weather is very severe. In this situation your cabbages will keep in a high state of preservation till spring, for being kept perfectly free from wet, as well as from the action of the sun the frost will have little or no effect on them. In such a place the heads may be cut off when wanted, and if they are frozen soak them in spring, well, or pump water, for a few hours previous to their being cooked, which will dissolve the frost and extract any disagreeable taste occasioned thereby.

This writer prefers this mode of preserving cabbage to placing them in the ground with the roots upward, and says that the application of straw immediately round the heads is a bad practice, as the straw will soon become damp and mouldy, and will of course communicate the disorder to the cabbages.

Mr. Derby of Salem, Mass. states his mode of preserving cabbages as follows: "I have selected one of the most airy situations on the farm, spread a few leaves on the ground to keep them clean and placed them upside down, close to each other, and shook in among them leaves sufficient to cover them, just leaving part of the root projecting out, then throw on them, just enough sea-weed to prevent the leaves blowing." *Mass. Agr. Rev.* vol. vii. p. 57.

The principal gardener in Shaker establishment, in New Lebanon, Columbia county, N. Y. "directed not to pull up cabbages in autumn, till there is danger of their freezing too fast to be got up. If there happen an early snow it will not injure them. When they are removed from the garden, they should be set out again in a trench dug in the bottom of the cellar. If the cellar is pretty cool it will be the better."

Gathering and preserving beets and other roots. In a report on agricultural experiments by a committee of the Massachusetts Agricultural Society, published in the third vol. of the *New England Farmer,* is a statement of certain premium crops, obtained by Messrs. Tristram and Henry Little of Newbury, in county of Essex, Mass. It is stated by those gentlemen that "they had tried divers ways of preserving turnips, mangel wurzel, &c. by putting them into a barn and covering them with hay, and by putting them into the cellar; the last mode we think the best." Col. Powel observed "that one of his crops of mangel wurzel was piled in a cellar in rows as wood, and covered with sand." A writer in the English *Farmer's Journal* observes that he has practised with success the following mode of preserving the mangel wurzel roots: "I pack them in long heaps about seven feet wide at the bottom. I begin by forming the outsides with the roots, not stripped of their tops, outward, the internal parts to be filled with roots without leaves; continue one layer over another, until the heap is about six feet high, and about two feet broad at top, which may be covered with straw and earth, the ends of the heap may be covered in the same way; the leaves form an efficient covering against frost."

Mr. M'Mahon's mode of preserving beets and other roots is as follows:—

"Previous to the commencement of severe frost you should take up, with as little injury as possible, the roots of your turnips, carrots, parsnips, beets, salsifi, scorzonera, Hamburg or large rooted parsley, skirrets, Jerusalem artichokes, turnip rooted celery, and a sufficiency of horse radish, for the winter consumption; cut off their tops, and expose the roots a few hours till sufficiently dry. On the surface of a very dry spot of ground, in a well sheltered situation, lay a stratum of sand two inches thick, and on this a layer of roots of either sort, covering them with another layer of sand, (the drier the better,) and so continue, layer about of sand and roots, till all are laid in, giving the whole, on every side a roof-like slope; then cover this heap or ridge all over with about two inches of sand, over which lay a good coat of drawn straw, up and down, as if thatching a house, in order to carry off wet, and prevent its entering the roots; then dig a wide trench round the heap and cover the straw with the earth so dug up, with a depth sufficient to preserve the roots effectually from frost. An opening may be made on the south side of this heap, and completely covered with bundles of straw, so as to have access to the roots at all times when wanted either for sale or use.

"Some people lay straw, or hay, between the layers of roots, and immediately on the top of them; this I do not approve of, as the straw or hay will become damp and mouldy, and very often occasion the roots to rot, while the sand would preserve them sweet and sound.

"All these roots may be preserved in like manner in a cellar; but in such a place they are subject to vegetate and become stringy earlier in the spring. The only advantage of this method is that in the cellar they may be had when wanted, more conveniently during winter than out of the field or garden heaps."

"*Note.*—All the above roots will preserve better in sand than in the common earth; but when the former cannot be had, the sandiest earth you can procure must be dispensed with."

(From the Mechanic's Magazine.)

METHOD OF CULTIVATING MANGEL WURZEL.

Sir,—According to the promise I made when I sent the method of brewing ale from mangel wurzel, for insertion in your valuable Magazine, I now send you some account of the method of cultivating the same. Many people imagine that early sowing the seed of the above plant is conducive to a large root—I grant that the very few plants which do not run to seed will produce large roots; but the proportion of the plants which do not run is so small, that a great loss is sustained by early sowing. From long experience, I find about the seventh day of May is the most proper season for sowing. I have cultivated it for more than twenty years, and have tried many experiments, the result of which is that the following is the most proper mode of cultivation:—

Let the ground be *well* dug to the depth of a foot, or even more, and all the lumps of earth well broken; the ground must be raked even after the spade, and as little trodden as possible; if some rotten dung be dug in, so much the better, as the land cannot be too rich and strong; draw very shallow trenches sixteen inches from each other, and from ten to twelve inches apart; in those trenches deposite two or three seed pods, and then cover them as lightly as possible with earth—for although the plants are strong when full grown, I do not know a plant whose seeds will bear less covering than mangel wurzel. After the plants have grown three or four inches out of the ground they may be thinned, so as to leave only one plant, (and that the largest,) in every ten or twelve inches,—should any of the seeds entirely fail, one of the strongest plants drawn out may be planted, being careful not to break the root in planting, as that would be certain not to make a short and small root. The best way is to make a hole sufficiently deep with a dibble, to allow the plant to go down perfectly straight; those that have been drawn and replanted must be watered for a few days. In about ten days or a fortnight after thinning the plants, they must be lightly moulded up, and the ground be henceforward kept very clean. In about two months the bottom leaves may be broken off, and given as food for pigs, which they are very fond of. The rent of ground and expense of labor are well repaid by the leaves alone, which may continue to be taken off, as they grow, until the latter end of October, when the plants must be taken up, the tops cut off, and given to the pigs or cows, and the roots buried in the same manner as potatoes are. They are then either brewed into ale, or given to pigs or cows, as winter or spring food; they are better boiled and mashed as potatoes; and with a small portion of barley meal, will fatten pigs exceedingly quick. It will be necessary in the spring, when potatoes are taken out of the graves, to take the roots of mangel wurzel out also, and lay them in a dry building.—I have frequently kept the old roots until after the midsummer following, perfectly sound and good.

Since the very extended publication of my method of brewing ale from mangel wurzel, I see others have published a method of brewing, as emanating from their own brains. Now, sir, as I am certain I was first to make known the method of brewing such ale, I shall no longer appear as an anonymous writer, but subscribe myself with every good wishes for the welfare of your Magazine,

Your sincere friend, and obedient servant,

EDWARD WATSON.

Laceby, near Grimsby, April 16, 1830.

(From the Annales D'Horticulture.)

A method of increasing the size of Fruits; by M. JAUME SAINT-HILAIRE.

Amateurs of beautiful fruits, will doubtless read with pleasure, the experiments made by M. Jaume Saint-Hilaire, for increasing the size of Pears, which are described in a memoir, read by him, on the 5th of November, 1829, before the Societe Royale et Centrale D'Agriculture.

On examining the espalier pear trees, in the nursery of the Luxembourg and in many other gardens, I have several times remarked, says the author, and particularly during the month of August last, that when a pear was accidentally sustained by the trellis and wall, or was placed in the fork of two branches, it was generally larger, than those on the same tree, which were freely suspended from the branches. I presumed that this difference was thus occasioned; that when the fruit attained a certain size, its weight contracted the tubes and vessels of the peduncle destined to conduct the sap of the tree, and prevented it from obtaining a size equal to such as were supported and consequently more favorably situated, for receiving the nourishing juices. I was, therefore, desirous of ascertaining how far this hypothesis would be confirmed by experiments, upon different kinds of pears; M. Dalbert, an intelligent and zealous gardener, aided me in making them, in the department of fruit trees, in the Royal Garden. We first selected a young tree bearing a pear called the *Duchesse D'Angouleme* figured in the *Flora et la Pomone Francaise* (Pl. LVI.) A pear, situated near the middle of the tree, was, on the 15th of September, nine inches and four lines in circumference, it was left suspended from the branch. Another pear situated lower, was at the same time eight inches and ten lines in circumference. We placed under the latter a little shelf fixed upon a stake driven into the ground, in such a manner that the pear was supported by it. The 30th of September following, the two pears were gathered; the first, which remained suspended, had increased but two lines, and the second which was supported by the shelf, was nine inches and seven lines in circumference: it had gained nine lines, which is considerable, for so large a pear, and in fifteen days.

It may be objected, that the position of the pears upon the upper or lower branches, contributed to increase the size of one more than the other.

We selected two pears, called Beurre D'Aremberg, growing on the same branch and emanating from the same fruit spur. On the 15th of September, one of them was eight inches and four lines in circumference, which was left suspended; the other was eight inches and was supported by a shelf. The 7th of October following, both pears were gathered; the first had increased but two lines; the second was eight inches and eight lines in circumference, having been enlarged eight lines. It will be seen that the largest of the two pears was left suspended and the smallest was supported. An experiment, the reverse of this was made.

Upon a Chaptal pear tree, figured in the Flora et la Pomone Francaise (Pl. XCIII,) two were selected, which emanated from the same fruit spur: instead of placing the shelf under the smallest it was put under the largest, which, on the 15th of September, was three lines greater in circumference, than the other. On the 15th of October, these two pears were gathered; the largest was then nine lines larger than the other, that is, it had increased six lines more.

From these experiments, it is believed, if they were repeated the following year, and commenced in July or August, a more marked difference and more satisfactory results would be produced; and my theory could be applied to other kinds of fruits, such as Quinces, Apples, Oranges, &c.

A method of making Camellias produce seed; by M. LAFFAV FOURNEIR.

The author says, that having seen Camellias filled with seeds, in a garden he remarked these plants with more attention, and perceived, that the most of them had their branches mutilated and the ends broken off. In February following, Mr. Laffay suppressed the wood buds, which accompanied the flowers, on several of his Camellias, in order to direct the sap into the flowers and nourish the seeds; the experiment was successful, and has been repeated since with equally good fortune, particularly with Camellias cultivated in pots.

A method of accelerating the maturity of Melons.

This consists in spreading under and around the melons, a bed of pulverized charcoal two inches deep. Lampodias, at Freiheng, attempted this experiment in 1813, and he succeeded in ripening melons in a box filled with earth and not covered during the cold summer of that year. The surface of the charcoal attained a temperature at noon of from 115 to 188 degrees, while elsewhere it was only from 85 to 88 degrees.

SILK.

A Silk Cultivation Society has been formed in Holland. The efforts of a similar Association in England are said to have failed on account of the humidity of the climate. They have abandoned their mulberry plantations, one of which was in England, and the other in Ireland. A writer in the Bulletin Universal thinks the business cannot be made profitable in Europe much farther north than at present.

Mr. Benjamin Pickering, Newington, N. H. has a sweet apple tree which has produced three crops of ripe apples this season.

RURAL ECONOMY.

(From the Southern Agriculturist)

Account of an experiment instituted for the purpose of testing the value of the native breed of Cattle, for giving milk—by ARATOR.

MR. EDITOR,—My fondness for good milk and butter, and a desire to know what improvement might be made in degenerated cows, by a proper course of treatment, induced me, the last winter, to an experiment with eight cows; an account of which I will now give you in the hope that some of your readers may be stimulated to improve on it, and that it may in some degree be useful.

I erected a house for the exclusive use of these cows, and partitioned off eight stalls in it, four on each side and between the ranges of stalls a sink was made as a receptacle for the dung and urine. A trough was placed to each range of stalls, to hold the food. My cows, with the exception of one of them, (which is of the short horn beef blood) are of a degenerated stock, occasioned by that sort of neglect which has long been common in this part of the country, they were poor at the time they were put up, and the whole of them at the time did not give five quarts of milk at a milking. Their food for some weeks after they were put up, was composed of a mixture of cut sugar-cane blades, cut straw and shucks, cotton seed, and wheat bran, all boiled together, with a little salt added to the mixture.—After the stock of bran was exhausted, the other ingredients were continued with an addition of pot ale, from a whiskey distillery; boiling the food was discontinued at this time. From a period of three weeks after the cows were put up, till recently, the whole of them together gave generally the rise of forty-eight quarts of milk each day; and twelve quarts per day was frequently taken from a choice one of them. How much butter was yielded is not known, but my good wife tells me that considerable addition has been made to her pin money stock by the sale of butter to our neighbors, several of whom have been supplied by her.

The curry comb was used morning and evening on the cows, and the dung and wet litter removed from under them into a receptacle every morning and a new bed of dry leaves from the woods, placed under them.

For the trouble I have had with this small experiment, and the food consumed in it, I have had ample compensation not only from the butter, as already stated, but also from the quantity of milk it enabled me to give my negroes, and from a large quantity of manure for the improvement of my land.

ARATOR.

BULL CALF TUCKAHOE.

We have understood, and have no doubt of the fact, that a bull calf called Tuckahoe, 5 months old, bred by R. K. Meade, Esq. has recently been sold to a farmer on James river for the sum of $100, and carried there. We have made some inquiries in relation to this matter, and learn that one-fourth of this sum would have been thought high by the farmers of our fine grass country. They permit the most valuable animals to pass them, and go on to the south, where we should suppose they never could succeed with as much perfection as in the middle country, our climate and soil being so much more congenial to their habits.

We learn that this calf, as remarkable in his appearance as the first, was the second sired by the bull Edward from the cow Blossom, the premium heifer at the last Winchester agricultural fair, and full brother to Powel, who weighed in our hay scales 1045 pounds at a year and a week old, in May last. This calf is said to be second to but one on record, and that one a full-blooded, of Mr. Powel's raising. Frolie, by Bishop and Laura, at 10 months and 12 days old, weighed 1022 pounds: this bull was nearly two months younger than Powel, but was 23 lbs. under his weight. To the fortunate purchaser of the bull Tuckahoe, this will be a sufficient pedigree; we wish him great success in improving the cattle on James river. It is thought that Powel would weigh at the present time from 1400 to 1500 pounds, and that he will be in the neighbourhood of 2,000 pounds at 2 years old. What is prophecy now, we hope will be history when he comes to be tested by the scales in the spring of 1831.

An advertisement has been observed in the American Farmer, of some short horns for sale in the neighbourhood of Lancaster, Penn.; it is said there are cows amongst them giving 40 quarts of milk per day, for many weeks together. We confess it astonishes us—but these short horns are wonderful animals. We like moderation, and would recommend prudence in purchasing and improving: the half of 40 would be a vast addition to the ordinary quantity. It is hoped some of our enterprising farmers will attend the sale; but we recommend a bit of the advice of the sage Franklin—not to pay too much for the whistle

[*Winchester Republican.*

LADIES' DEPARTMENT.

COMFORT.

This is a very comfortable word; and it is a sad pity the French do not know what it means. But it is a still greater pity that we, who have the word, and do know its meaning, should so often sacrifice it for the most unsubstantial reasons. The fact is, we are ashamed to be comfortable, lest we should appear ungenteel. The best chamber in the house must be shut up for company; the lightest and the handsomest parlor must be kept closed for the same reason. We must have a large house, and few domestics, for the sake of appearances,—and we sometimes cut ourselves off from intelligent society, because we cannot afford to receive them with quite so much show and ceremony as our neighbors. All this is foolish. If we cannot afford to be elegant, we can, at least, be comfortable; and if we *can* procure the elegancies of life, why not enjoy them every day? Why must spring-cushions, and warm carpets, and airy rooms, and handsome walls, be shut up three hundred and fifty days of the year, for the sake of making a grand show off, now and then? Why do we not consult our comfort by living in smaller houses, and keeping more domestics? Surely, leisure for intellectual and tasteful pursuits is better than the reputation for lofty rooms and venetian windows. Why should we refrain from seeing cultivated people in a social, cordial way, because another can give them better wine and rarer fruit?

I admire splendor, and where circumstances warrant it, I am even strongly in favour of magnificence; but above all things I do love comfort.

I believe no people in the world have such fear of public opinion as the Americans. To a certain extent the check is a salutary one; but our domestic life is a matter of much more concern to us than it is to the public; and we ought to have sufficient courage to study our own comfort, and gratify our own tastes.

Our manner of visiting, and of receiving visiters, is laborious in the extreme. If friends are staying with us, we feel as if every moment must be devoted to them. We cannot sleep, or ride, or read, or visit, for fear our friends should be left alone. This is making visiting a burden to them, as well as to ourselves. We soon become uneasy at such constraint, and they are restless under a conviction that they impose it upon us. The fact is, it is a luxury to a visiter sometimes to be left alone—to read, or ramble, or sleep, according to fancy. Many a time, when I have really admired and loved my hostess. I would have thanked her from my heart for a little relaxation of attention—the privilege of being sometimes left to my own thoughts—the luxury of a little more freedom, for her and for myself.

At the south, they manage these things better than we do. Their hospitality is unbounded. Visiters may be at home in a mansion, without depriving the inhabitants of the pleasure of home. Every thing is at the service of friends; but if the hostess wishes to visit, where her guest has no particular inclination to go, she does not hesitate to leave her to herself, to dispose of time as best suits her. What a relief not to be *obliged* to visit, or *obliged* to stay at home! This perfect freedom is the only thing that can make visiting a real pleasure to all parties. A friend lately told me of a very elegant woman he had seen at the south, who formed the most prominent attraction at all the fashionable parties.

"I saw her once early in the morning," said he, "buying some fine fruit, at her door. She had on a calico morning-dress, and a very neat plain cap. I thought her an uncommonly genteel domestic—but never dreamed of its being the brilliant belle I had seen the evening before, until she bowed and spoke to me. We entered into some conversation concerning the fruit she was buying; and simple and commonplace as the remarks must have been, during such an interview, I was absolutely enchanted with the graceful ease of her manner. A New England woman would have escaped into the house, on my approach—or not recognized me; or, if I had spoken first, would have blushed, and fidgetted, and apologized for her morning dress." Which course is the wisest?—not to ask, which is the most comfortable. An ordinary woman will never get a character for real elegance by starving herself for state occasions; and a truly tasteful one will lose nothing by being sometimes seen without coronation robes.—*Journal and Tribune.*

THE CONTENTED FEMALE.

A nobleman soliciting a young country girl to abandon her rustic state, and reside in a populous city, she replied, "Ah! my Lord, the farther we remove from *ourselves*, the greater is our distance from happiness!"—They who leave their homes, uncalled by Providence, in search of happiness, generally find they are only farther from it.—*N. E. Farmer.*

MISCELLANEOUS.

(From the New England Farmer.)

GUANO.

Dear Sir,—I observed in the *New England Farmer* of September 3. page 54, an extract of a letter from the American Consul at Arequipa, Peru, "relative to a kind of manure, called by the Spaniards, *Guano*." Perhaps the following more particular account of that substance, extracted from M. Von Humboldt's letter to M. Klaproth, may be interesting to those who have seen the above quotation. Undoubtedly it is the ordure of sea-birds of the Pacific, which has been accumulating *a seculis seculorum.*

All the Aborigines of Peru were of opinion that this substance is bird's dung; which was, however, doubted by many of the Spaniards. It is worth remarking, that all the Guano islands and rocks are situated between the 13th and 21st degree of south latitude; and yet the number of cormorants, flamingos, and cranes, appear to be equally considerable in the islands situated farther towards the north or south. In Asia large magazines are erected alongside the shore for the reception of the guano. If we consider that, ever since the twelfth, or at least the thirteenth century, it has been customary in Peru to manure with this substance; that many millions of cubic feet have been strewed over the sandy parts of Peru (and indeed the possibility of practising agriculture along the sea-coast depends entirely on this precious material); and further, that the guano still continues to be furnished in large quantities, and that the experience of the present generation appears to prove that these birds, on one of the islands, will scarcely produce a ship load of dung in a great number of years; if we consider all this, we cannot refrain from being astonished at the long series of centuries, or the vast number of birds, that must have been required to accumulate those immense strata of guano.

Though we can no longer hesitate to consider also the guano as dung of birds, yet it may be asked, has it originated on the same islands where it is now found, or has it been accumulated there by some revolution of the earth? Does it point back to an era when the deluged globe was provided with a greater number of aquatic birds than at the present time, in the same manner as the coal formation refers us back to a vastly luxuriant vegetation? Or was the guano formed under circumstances perfectly similar to those now existing, and was nothing required to produce such immense stratification but a long succession of ages? A long residence on the rocks and islands of the Peruvian coast, and attentive observation of the quantity of dung deposited at present by many thousand cormorants and flamingos in the space of one year, are the means which may, perhaps, at a future period, enable us to answer these questions. But it may be asked, what is to become of Peruvian agriculture, and what of the population of the coast, when the exhausted Guano islands shall no longer yield this manure?

In the neighborhood of Arica, where the crop of pepper, (*Capsicum baccatum*, bird-pepper,) is valued at from 3 to 400,000 dollars a year, each plant is manured three times every season with guano, viz. at the periods of taking root, flowering, and producing the fruit.

Under the government of the Incas, the guano was considered as an important object of political economy. It was prohibited, under pain of death, to destroy any of the birds on the Guano islands, each of which had its inspectors, and was divided into departments. From Arica to Chancay, a tract of 200 leagues in length, no other manure was made use of than guano. This great care accounts in some measure for the vast increase of the guano. But those wise regulations have long been abolished: at present the guano is dug for without regularity, and at all seasons.

In an account of the guano, given to Messrs. Fourcroy and Vauquelin, (to whom specimens were communicated,) mention is made of a few other circumstances relative to that substance. The guano, says Mr. Humboldt, is found not only in the Chinche islands, near Pisco, but it exists also on the parts of the coast and its isles situated more in the south, at Ilo, Iza, and Arica. The inhabitants of Chancay, who trade in this article, go to the Chinche islands and return in twenty days. Each boat takes a cargo of from 1500 to 2000 cubic feet of guano.

The strata in which the guano is disposed are from fifty to sixty feet in thickness, and they are worked in the same manner as the iron ochre mines. It is an excellent manure for the Indian corn or maize; but if too much of it be applied the root is burnt and destroyed by it.

When exposed to the fire the brownish yellow color of the guano is converted into black; it gives out white fumes, and the smell of empyreumatic ammonia. Water dissolves part of it, becomes thereby of a reddish color, and adopts an acid taste. Potassia dissolves much more of it than water; the solution is of a deep brown color, and is produced under an abundant developement of ammonia. The result of the chemical analysis, made by Fourcroy and Vauquelin, is, that the principal constituent part is concrete *uric acid.*

SOLOMON DROWN.

Foster, R. I. Oct. 9, 1830.

The drought was so great in Tennessee last summer, that thousands of forest trees died, particularly where strata of limestone were near the surface of the ground.—*Boston Patriot.*

Wives taken in Exchange for Tobacco.

There is a singular fact mentioned in Marshal's Life of Washington, which we do not recollect to have seen any where else. It is stated, that in the early settlement of Virginia, some three or four hundred young ladies, all virgins, chaste and fair, were transported from England to that colony, and sold to the young planters as wives, for one hundred and fifty pounds of tobacco each. If any young man was unable to pay in advance this inconsiderable price for his companion, he was most generously credited until he could plant, make and gather his crop. It is likewise stated that this debt was considered a debt of honor by the young planters, and therefore paid in preference to all others. We doubt very much whether such *fair* bargains can be had on terms so liberal at the present day. There is one thing, however, in the exchange of these two commercial products of the old and new worlds, which we do not think is altogether correct. It surely does not comport with our notions of justice and equity, to exact the same price for a bad wife as for a good one. As it regards the propriety of such a rule in 1620, we can only speak conjecturally; but to our certain knowledge, there is a difference of more than a hundred and fifty pounds of tobacco in wives now-adays.

REMEDY FOR LOCK-JAW.

We are informed by a friend, that a sure preventive against this terrible disease is to take some strong soft soap and mix with it a sufficient quantity of pulverized chalk, so as to make it of the consistence of buck-wheat batter—put it into a cloth or small bag and apply it to the wound—keep the chalk moistened with a fresh supply of soap until the wound begins to discharge, and the patient receives relief. Our friend stated to us, (and implicit confidence may be placed in what he says,) that he has known several cases where this remedy has been successfully applied. So simple and valuable a remedy, within the reach of every person, ought to be universally known.—*N. Y. Evening Post.*

Singular Case.—*Locked-jaw Cured.*—The treatment of Tetanus has hitherto been a "forlorn-hope" In the practice of medicine; we have *heard* of some cases of cure, but on inquiry it has generally been found that the symptoms were not, as the faculty would say, confirmed, or the reports by no means authentic. We have now, however, the pleasure of stating to the public that this distressing, indeed awful disease, has been treated in our city with complete success. A poor man, named Kenny, lately received an injury which produced confirmed locked-jaw, for which he was removed to the Wellesley Hospital, and placed under the advice of Surgeon O'Beirne, who has, we believe, devoted much attention to the nature and treatment of the disease. The learned gentleman adopted a practice which, if not quite new, has not hitherto been successfully employed, and has now completed a cure of the poor patient. Tobacco was the principal remedy, and was chiefly used in the form of enama.—*Dublin Morning Register.*

Singular Discovery.—Mr. Horton, a gentleman who has been engaged in boring for water in Providence, R. I., has presented to the public some remarkable results. In his second experiment in boring, he selected the extreme point of a wharf, many yards from the original land. He bored through a stratum of mud, then through a bog meadow, containing good peat, then through sand and quartz gravel. At this point water, impregnated with copperas and arsenic broke forth; but determining to proceed farther, Mr. Horton next struck a vineyard, and drew up vines, grapes, grape seeds, leaves, acorns, hazel nuts, pine nuts, and the seeds of unknown fruits, together with pure water. This was 35 feet below the bed of the river.

South Carolina Silk and its Manufacture.

We have in our possession a pair of silk stockings, the material of which was raised by Miss Harriet Winn, of Winnsborough, in Fairfield District, and knit by that young lady's own hands; which every one to whom we have shown them, pronounce particularly beautiful. They are certainly beyond any ideas that we had formed of the perfection which this interesting culture had reached in South Carolina. It is almost impossible to distinguish them from the finest specimens of woven hosiery, and they entitle our fair friend to very great praise for patriotism and ingenuity. Such a specimen, in our opinion, settles the practicability of silk cultivation in our State.

[*Camden Journal.*

A full grown ripe pear was brought to this office on last Friday evening, by a gentleman of our acquaintance, who informed us that it was the *second* growth of a tree on the farm of Zadock Long, Esq. near this place, (Princess Anne, Maryland.) We believe it frequently occurs in this county, that trees blossom twice, and we have observed several instances of trees yielding fruit a second time, in the same year, but we think it rarely occurs that the second product comes to maturity, as in the case above noticed.—[*Village Herald.*

A Pear, weighing 35 ounces was raised this season in Olney township, Pennsylvania.

THE FARMER.

Baltimore, Friday, Nov. 19, 1830.

Cape Brocoli.—This most excellent vegetable has become quite common in our markets, and is raised in great perfection. A day or two since a couple were presented to us by Mr. Samuel Feast, raised at his garden on the Frederick road, which surpassed any we had before seen, for size, firmness, and richness. We were so anxious to test their excellence by the *palate,* that we quite forgot the more scientific but more fallible tests of the rule and scale; but we do not overrate them in saying that they measured ten or twelve inches in diameter exclusive of leaves. They were of the improved purple kind.

Owing to the peculiarly favorable season, Brocoli and Cauliflowers, are cheap as well as plentiful in our markets, and thus many who have heretofore looked upon them as delicacies beyond their reach, have been enabled to try them; and hence a knowledge of their good qualities has been diffused, and the gardeners will be encouraged to extend the cultivation of them by an increased demand. We have seen fine large Cauliflowers and Brocoli sold at 6¼ cents—such as could seldom have been obtained in any previous season for less than 12½ cents, and such as we have often seen sold at 25 cents.

The cultivation of late Cauliflowers and Brocoli, is scarcely more difficult than that of Cabbages, and when we consider that they are infinitely superior to the cabbage in all desirable qualities, we cannot but consider it a matter of surprise that they are not more often seen in the gardens of our farmers. We do not hesitate to say, that any body who once partakes of a well prepared dish of either, will never again touch a cabbage while he can get them. Their cultivation differs in no respect from that of late cabbages, except probably in the appropriation of a richer soil, and a quarter of an ounce of seed will afford a pretty good supply of plants. They can be sown the latter end of May or in June, and transplanted in August. In a very dry time, if the plants are surrounded and the ground covered with straw 6 or 8 inches deep, or even up to the leaves of the plants, great benefit will be derived from it, as it will keep the ground cool and moist.

Threshing Machines.—Will some of our agricultural friends, who have threshing machines, favor us with an account of them—their cost, performance, quantity of power and number of attendants required to work them; so much of a description as will enable readers to form an idea of them, and the address of the manufacturers? We wish this information to come from some practical farmer, who uses the machine, and has used it a sufficient length of time to enable him to judge of its practical utility, durability and liability to get out of order. There has been so many machines *patented* and *offered* for sale, if not "*made* for sale," like Peter Pindar's razors, and so few that have proved to be useful, that any one who can give the above information will do a solid favor to the agricultural community. We have several letters on our table calling for it, and we hope they may not call in vain. Let any one who has a machine with which he is satisfied give the information requested; and by no means omit it on the supposition that somebody else will do it; for this Mr. Somebody-else will be just as likely to suppose his namesake will do it, and thus we shall not get the information. We may remark in this place, and we wish it to be understood, that having seen the evil caused by the imposition of worthless machinery upon the agricultural community, we determined, on assuming the charge of the Farmer, to take every possible precaution to protect farmers from it; and therefore make it a rule to admit no recommendation of machinery into our columns without a personal knowledge or the evidence of undoubted testimony to its correctness. Neither do we allow a half hour's operation of a new machine, however excellent, to be the test of its goodness. It is good as far as it goes; but we want, and farmers want, to know how it bears the test of regular work, of common management, such as it must of necessity undergo in practical operation. Delicate friction wheels and the like will cause a machine to work wonders for a short time; but a farmer cannot afford to send to town half a dozen times in the course of his getting out his wheat for a set of new friction wheels; and, therefore, though the machine may get out 30 bushels of wheat an hour, or 300 in a day, he wants to know whether it will get out 2000 bushels in seven days, without getting out of repair, and if he can be assured of its continued operation for several years it will be still better.

Speaking of friction wheels, we have thought that *Winans' friction wheels,* such as he uses on his railroad cars, might be applied to threshing machines to great advantage, and we would suggest it to those who manufacture them. There would be no danger of these getting out of repair, and we think they would answer a better purpose than the common box anti-friction rollers.

Warminster, 14th Nov. 1830.

Mr. Smith:

The following is a statement of the produce of not quite one-third of one Irish potato. It was of a kind rare and uncommon with us. I was able to procure only one. I cut it into 32 pieces, each piece having an eye. I planted them in a spot of ground—rich, moist, and light, in the month of June, merely laying the eyes upon the surface previously well prepared, covering them with straw to the depth of eight or ten inches; only twelve of the eyes vegetated, the residue being destroyed by rats or moles. From these twelve eyes, being a fraction over one-third of the number planted, I measured, when taken from the ground a few days since, one half bushel one and a half gallons; one of the potatoes (the largest,) weighed two pounds three ounces; length, eleven inches; the average circumference, eleven inches. If you think this communication worthy an insertion in your highly valuable paper, please give it publicity.

Your obedient servant,

L. N. Ligon, M. D.

CULTURE OF CRANBERRIES.

Until lately we believe no body has thought of cultivating the Cranberry any more than the Whortleberry or the Persimmon. It has been looked upon as the natural product of swamps which were good for nothing else, and though the fruit was a favorite in the markets, the gatherers trusted to nature alone to keep the supply equal to the demand. A gentleman in Barnstable, Massachusetts, has, however, discovered that it is as susceptible of cultivation and improvement as the Strawberry. On about an acre of ground he has raised for the last ten years an average of about seventy bushels a season, sometimes a hundred. The following account of his Cranberry yard is from the Barnstable Journal.—*N. Y. Post.*

Sandy bog land is the soil best adapted to the growth of the Cranberry plant, and it should be kept well drained. Captain Hall has a tract of about four acres enclosed, which he calls his "Cranberry Yard," of a damp, sandy soil, surface nearly level, and, where not planted with Cranberries, covered with rushes and swamp brush. The Cranberry vines were set around on the borders of the "yard," some on land elevated two or three feet above the general level of the surface. The vines grow most vigorously, and the berries are of a better quality and more abundant where the soil is most sandy and damp. In very dry seasons, the Cranberries are liable to be eaten and destroyed by worms; but, in general, they are, under skilful management, as certain a crop as any kind of grain or garden vegetables.

The manner of transplanting is simple. Holes are dug four feet apart; only they are made deeper than for corn; into each of these sods of vines are placed. The Cranberry has creeping roots, spreads very rapidly, and in three years from the time of planting will entirely cover the ground. If the land is overgrown with bushes, they must first be removed; but it is not necessary to destroy rushes, for the Cranberry vine will do it in a few years. When the land is very low, and covered with a thick growth of weeds and rushes, captain Hall practises spreading over it a quantity of beach sand before planting. The fall is the best season for transplanting. No other cultivation is performed or required, than to keep the land drained, and cattle from injuring the vines. The Cranberries sell from $1 00 to $1 50 per bushel, and the cost of picking is 20 cents per bushel.

SCRATCHES IN HORSES.

This disorder or difficulty is too well known to all who own these noble animals, or deal in them, to need a particular description of it. The remedy is simple, safe and certain, in all cases which have come to my knowledge, however inveterate. It is only to mix white lead and linseed oil in such proportions as will render the application convenient, and I have never known more than two or three applications necessary, to effect a complete cure.

[*Turf Register.*

Prices Current in New York, Nov 15.

Bees-wax, yellow .2½ a —. *Cotton*, New Orleans .12 a .13¼;] Upland, .10 a] .12½; Alabama, .11 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask —— a ——; clean —— *Flour*, N. York, bbl. 5.19 a 5.25; Canal 5.31 a 5.50; Balt. Howard st. 5.50 a ——; Rich'd. city mills, 5.75, country, 5.25 a ——; Alexand'a, 5.25 a 5.37½; Fredericksburg 5.12½; Petersburg, 5.25 a ——; Rye Flour, 3.62½ a 3·75; Indian Meal, per bbl. —— a 3.25; per hhd. 14.50 a 15.00. *Grain*, Wheat, North, —— a ——; Vir. .98 a 1.04; Rye, North, 65 a —; Corn, Yel. Nor. .60 a 61; Barley, — a 61; Oats, South and North, .26 a .36; Peas, white, dry, 7 bu. 6. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.50 a 7.62; prime 4.88 a 4.94; cargo 4.00 a —— Butter, N. York, 12½ a 16; shipping, 8 a 10; Lard, .10 a .—; Pork, mess bbl. 14.00 a 14.50; prime 10.00 a 10.75; cargo ——.

Prices Current in Philadelphia, November 13.

Bees-wax, yellow .20 a .22; *Beans*, bushel .75 a .80. *Beef*, mess 10. a 10.50, prime 8 a 8.50, cargo 7; *Butter*, No. 1, 7½ a 8, No. 2, 6. a 6½; *Cotton*, New Orleans 12½ a .14; Mobile 12 a 13; Tennessee 11½ a 12½, Alabama 11½ a 12½; *Feathers*, South. .36 a .—, West. .36 a .—; *Flax* .6 a .7. *Flour*, sup. 5.12½; fine, 4.87½ a —— Rye 3.44 a —— Corn meal, hds. 13.00 a ——, bls. 2.90 a ——; *Flaxseed*, cask ——; bu. 1.30 a 1.32; *Grain*, Wheat .95 a 1.00 Rye 55 a 56, Corn l. c. white, 54 a .55, l. c. yellow, 53 a .55, u. c. round, 57 a 58; Oats .30 a .31; Barley, Pa. .60 a .62; do. East. 62 a 65; black-eyed Peas .40 a .50. *Hams*, Jersey 11. a 12½, Virginia 10 a 11, Western .10 a 10½. *Hemp*, 220 a 225; *Lard*, .10 a .12; *Oil*, linseed, 80 a 83. *Pork*, mess, —— a 15, prime 13. a 13.50; cargo 11.50 a 12. *Rice*, 3.— a 3.50; *Tobacco*, Kentucky .3½ a .6, Vir. .3 a .5; *Wool*, common washed lb. .40 a .45, half blood .45 a 50, three quarters blood .50 a 55, full blood 58 a .60; unwashed, generally 10 cents less, according to quality.

Prices Current in Charleston, Nov. 6.

Cotton, Sea-Island, .22 a .25. Stained .10 a 15. Santee, .20 a 22. Maine, .20 a 22. Upland, inferior and common 10½ a 11½, fair to good, .— a —, prime to choice, .— a .——. *Rice*, prime, $2.87½ a 3.00, inferior to good, do. $2.62½ a .2.75. *Flour*, Philadelphia, Richmond and Baltimore Howard st. $5¾ a 6. *Corn* .63 a .65. *Oats* 32 a .40; Peas, 62 a 64. *Hay*, prime Northern, .80 a 85—— *Whiskey*, Philadelphia and Baltimore, hhds. .34 a .—; bbls. 35 a —; New Orleans, old .37 a —. *Tobacco*, Kentucky, Georgia, &c. .4½ a .5½. Manufactured .9 a 14; Cavendish .20 a 33. *Beeswax*, .18 a .19. Tallow, Carolina, 8 a 8½. *Beef*, Boston, No. 1, .— a .9; Mess, 10 a 10½; New York Mess, .9 a .10, Prime; .6½ a .6¾; Cargo, .5½, nominal. *Pork*, Mess. .13½ a 14, Prime, .11 a .11½. *Bacon*, .7½ a. 8 cents; hams, 11 a 12½; Lard, 12½ a 14. *Butter*, Goshen, 18¾ a 20; inferior 7 a 12.

MESSRS. D. & C. LANDRETH'S GARDEN SEEDS.

The Subscriber would inform the public that he is now furnished with a fresh supply of the Messrs. *Landreth's* celebrated GARDEN SEEDS, of this present year's growth, which he offers wholesale and retail, at the Messrs Landreth's prices in Philadelphia. His whole stock of SEEDS now on hand, are of the growth of 1830, and can be warranted with the greatest confidence.

☞ CATALOGUES will shortly be received, containing a Treatise on the cultivation of Vegetables generally founded upon their own experience. Price 12½ cents each.

Also, on hand a general assortment of AGRICULTURAL IMPLEMENTS, as usual, of the latest and most approved kinds. J. S. EASTMAN,

West Pratt, between Hanover and Charles streets.

COWS WANTED.

If any one whom this notice may concern, will supply me with 2 or 3 cows of the following description, I shall be much obliged, besides paying from $30 to $100 for each individual cow, in proportion to their merit:—no cow to give less than 5 gallons of milk per day; such as will give from 7 to 8 gallons will command the highest price, provided her form, qualities, age, &c. will make it an expedient cross from a Frederick short-horn bull. An attempt will at least be made to rival the finest cattle of Europe, through the means of our late Durham short-horn introduction, uniting them with the best selected cows of our country stock, which occasionally discover some of the finest points of the celebrated imported cattle. Should the plan fail on a fair experiment, comparing them by authentic reports, and side by side, with imported cattle, we will again apply to our trans-Atlantic friends for an improvement of the stock. Letters, post paid, [giving a just description of any remarkable cows, would induce the subscriber to ride any reasonable distance to see them, where opportunities would not be improved to send them for trial. R. K. MEADE.

Lucky Hit Farm, Fred'k co. Oct. 29, 1830.

3000 WHITE MULBERRY TREES,

In fine condition, and warranted to grow, for sale by the subscriber—price $2 to $8 per hundred, if ordered any time in November. GIDEON B. SMITH.

NOTICE.

Eliphalet Easton, who sometime since acted as agent for the American Farmer in the Western country, Ohio, Kentucky, &c. is no longer authorised to act as such. All persons are therefore cautioned against paying him any money on account of the American Farmer. I. IRVINE HITCHCOCK & Co.

Proprietors American Farmer.

☞ The National Republican and Liberty Hall, Cincinnati, Kentucky Reporter, Lexington, and the Wheeling, Virginia, Compiler will please copy the above one time.

BALTIMORE PRICES CURRENT.

Baltimore Market.—There is little change in any of the staples of our market. Sales of Howard street flour were made yesterday from the stores at $5, and of city mills at our quotations. The market is well supplied with wheat, which readily commands our rates. Beef continues plenty and dull; prime would probably command a fraction above our highest rate.

Tobacco.—Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 441 hhds. Maryland; and 9 hhds. Ohio; total 450 hhds.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard-street 5.00 *a* —— city mills, 4.75 *a* 4.87½—Susquehanna, ——; Corn Meal, bbl. 2.25—Grain; red wheat, 95 *a* 1.00; ——white do. 1.03 *a* 1.07—common red ——Corn, white, .55 *a* .56—yellow .56 *a* .57——Rye, .55 *a* .——Oats, .29 *a* 30 Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 6.25 *a* 6.75 Timothy, 2.25 *a* 2.75—Orchard Grass, 1.25 *a* 1.50—Herd's, — *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½ Flaxseed —— *a* —Cotton, Va. 9½ *a* 10½—Lou. 11½ *a* 13½—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½—Upland 10 *a* 13-Whiskey, hhds 1st p. .30 *a* —; in bbls 31 *a* 32——Wool, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.50, *a* ———No. 2, —— *a* 6.00—No. 3, 3.62½ *a* 3.75-Bacon, hams, Balt. cured 10c.-Feathers, 34 *a* 35--Plaster Paris, cargo price per ton, 4.25 *a* 4.31¼ ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 3.50 *a* 4.25—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—Hickory, $4.50.

EDITED BY GIDEON B. SMITH.

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TERMS.

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6. All letters concerning this paper must be directed to the publishers. They must be free of postage, except communications intended for publication, and letters transmitting money for *future* (not past nor current) volumes.

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AGRICULTURE.

(From the Lynchburg Virginian.)

A Treatise on the Cultivation of Indian Corn, Wheat, and Tobacco, read before the Triune Society of Amherst county, at its annual meeting, Sept. 25, 1830, *by Zacharias Drummond, Esq. President of the Society.*

Fellows of the Triune Amherst Society:

At our last meeting, an order was made, which requested, at my hands, a lecture on Indian corn, wheat and tobacco; and however incompetent, yet, being at all times ready to assist in the advancement of agriculture, as an art, I have complied with the demand, so far as my ability can, within the limits of a contracted treatise, exhibit ideas, and experimental knowledge.

The maize is a plant, which, before the discovery of America, was known only to the Indians; hence its name—*Indian corn.* It is now cultivated partially in some other countries, particularly in France; and, we are informed that in those districts of France where the maize is in common use, the inhabitants are much more healthy than elsewhere.

The Indian corn is a hardy plant. It is more productive, on land of any quality or situation whatever, than any other grain.—It is less liable to disease,—it is less liable to be damaged by wevil,—it suits our slovenly mode of culture better than any other,—it contains more wholesome and nourishing aliment than any other,—it is bread for man, and hay for beast,—it affords more offal for manuring.—And yet, what more augments its value, and is most wonderful, it has the capacity of adapting itself to any climate or soil whatever.

From what has been said, it would appear that Indian corn is the most valuable grain on earth; and therefore, should call forth all our genius, skill and industry in its culture.

The Indians, who once cultivated in this their only grain, some of those lands, on which we now toil, had no tool of metal, no team, no plough; but fallowed and tilled their fields with sticks and stones; they made from twelve to fifteen barrels of grain to the acre; yet, we are ready to exclaim, "oh, what barbarous agriculturists!"—Many of us fallow and till our fields, with a shovel or a coulter plough; the shovel cutting at best about three inches deep, leaving more than half the ground unbroken, and the coulter cutting at best about six inches deep, leaving the ground not as art should have it, but as nature pleased; with the seeds of grapes and weeds in their proper element, which, thus situated, will prove their rights of freehold, in spite of shovel and coulter.

On new land and rough mountains it is true that such instruments as those above mentioned can only be used; but one using such, yet situated where the latter can be used, is blind to his own, and his country's interest; and I feel it a duty to declare that he is near akin to an idiot, or a barbarian, or both. We make on our lands about an average of four barrels to the acre. Has not the Indian the greater right to exclaim, oh, barbarous white man!!

Corn which has been planted on such a fallow as above described. (if a fallow it may be called) grows and thrives surprisingly, until the roots have penetrated through the soil, and beyond the fallow, where a compact clay will not admit of their ranging in search of the wonted supply of food, and consequently a sudden failure is discovered; and now the agriculturist begins to wonder and to guess, what can be the cause of the change in his crop. He will say this is certainly the most thirsty land that ever was—the drought is operating more severe on me than on any of my neighbors. I must change my kind of corn, for it don't suit my land—this is a poor crop year, &c. &c.—but let me tell you, fellow agriculturists, that such teams, such tools, such arguments and excuses will not do; let me tell you that a vegetable, like an animal, must have a plentiful pasturage, or it becomes a dwarf.—As a calf will fatten on a thin pasturage, so likewise will corn when young; but when the calf has become a large bullock, an extensive range is required, so likewise of corn.

Let me liken the corn on a shallow fallow, to cattle on a field which is tied up with innumerable fences; the cattle cannot feed because of the impediments, neither can the corn; but remove the fencing and the cattle can move in any direction in search of food, so likewise of corn. Our strong lands produce better crops of Indian corn, than land of better quality, which is clear of stone. And is not the cause evident? The roots in the stony land, find a passway between the stone and the earth; but where there is no stone and the earth hard trodden by stock, or hard baked by being exposed to the sun, the tender roots cannot find a passway in search of food, and consequently must suffer for nourishment.

But, least one think that I want to give this fabric too dark a coloring, or another that I want to point my finger at his cornfield, I will close this sarcastic, therefore unpleasant part of my task, with a remark of Col. John Taylor, deceased; "a native who has lived with, and upon Indian corn for more than two hundred years, so far from correctly estimating its value, has only learned to eat it."

I shall first speak of ploughs; secondly of fallowing and preparing corn land; and thirdly, of the culture of the corn.

There is no instrument, which so much demands the attention and ingenuity of man as the plough. Of the plough with a mould, we have the McCormick, the Davis, the Cary, the Peacock, the Dagon, the Barshare and others. The McCormick and Davis are the best ploughs in use amongst us, the only difficulty in their construction being in the cast of the mould, which difficulty, or objection, I was much pleased to find, by examining in the work shop of Mr. Lankford, of Lynchburg, had been obviated.

Of other ploughs, we have the Dutch shovel, the cow tongue or ripper, the coulter and the cultivator. The shovel should only be used for marking of rows, for opening furrows in which seed is to be planted, for cultivating tobacco, and for putting in small grain where the cultivator cannot be used. The cow tongue can be used for the same purposes as a shovel, and may be more advantageously used on steep and stony land. I know of no use for the coulter, except breaking and tearing up the roots of trees. The cultivator is used for light tillage, and for putting in small grain on fallows.

By our best farmers, is likewise used the skimmer, which is similar to the hand-hoe,—the hillside plough, with one mould board, which may be shifted to either side, and the trowel hoe, with two mould boards, which is used between beds, for the purpose of making them equi-distant, and for opening water furrows.

There is no doubt but that a plough could be propelled by steam, and on large farms such could profitably be used for fallowing, particularly on clay fields.

The objects in fallowing are 1st, opening the earth, so that the roots of vegetables may range in search of nourishment; 2nd, that the atmosphere may enter the more copiously, for the improvement of the earth, and for feeding of vegetables through their roots; 3rd, pulverising the earth, so that vegetables may feed on it; and 4th, removing wetness. Let any one consider well of those objects, and he will discover, that for either, and for all of them in conjunction, the deeper the fallow the better; and if I were to declare that land should be fallowed ten feet deep, he will not be inclined to contradict it.

On deep fallows any vegetable will start but slowly to grow, but so soon as the roots have pushed their way to the surface mould, which has been turned under, the plant improves rapidly, and a respectable harvest may be expected, be the year either wet or dry; for if wet, the superfluous water will sink, and if dry vapor and air will be absorbed for the nourishment of the crop. However propitious the season, we always find on a shallow fallow large stocks and small ears of any kind of grain, but on a deep fallow, we on the contrary, find small stocks and large ears.

All level clay, and all wet soils should be fallowed into beds; giving the beds such a direction as to cast out superabundant water. All dry soils, however, level, should be fallowed naked or flat, and all broken ground should be fallowed and tilled horizontally. After a fallow has been rough broke, the break harrow should be used when the sod is moist; then, if possible, the fallow ploughed again with one horse to a plough, and again harrowed. Upon a shallow fallow, corn should be planted at the distance of five or six feet square: but on a deep fallow. I have invariably found, that the thicker planted, the greater the produce. We need only to think of the difference in the pasturage, to be satisfied as to the difference in the produce. I once planted a spot of corn four feet by two feet two inches, with two stalks in a place, and the produce was greater than any other spot I have ever planted. This year I made my corn rows five feet apart, and planted the corn at three feet on the rows, with two, and in one spot three stalks in a place, and I am inclined to think that if I had planted thicker I should have made more.

For the first working of corn a cultivator or harrow, with the centre hoe or tooth taken out, is the most proper. The most that is necessary at this time, is to break a crust on the surface of the earth, that the corn roots may get all the air possible, therefore one pass immediately over the corn, is sufficient for a row. If for this purpose two horses or a yoke of oxen be used (one walking on either side of the row,) so much the better; but if only one, put that one on the row of corn, and fear not, for the damage is trivial.

For the second working of corn, the McCormick or Davis plough is the proper instrument. The plough is now necessary for the destroying of grass and weeds; and therefore it should be run so near the corn as to lap the earth on the row. One horse to a plough is sufficient for this working. The hand hoe should now follow the plough, for the purpose of dressing the corn, when it will also need thinning.

The third working of corn, or that which it receives when nearly ready for tasseling is the most material, and therefore should be done in the best and neatest style. If the rows are sufficiently wide, two horses should now be put to a plough, or if only one, then that one should be able to draw the plough from eight to nine inches deep.

For the last working a cultivator or light skimming with a plough is most proper.

I will close this head, by relating my experiment in watering my corn this year. You all know, that I have ditches around the greater portion of my plantation, for the purpose of conveying water on my lands. I had therefore only conveyed water on my land when out of cultivation, for its improvement; but this year, the drought being very severe, I determined, although fearing the consequences, to try the stream of Buffalo on my cornfield. I do not recollect the precise time that the water was turned on, but it was when my corn would have been half made, if the season had been favorable, yet many stalks had no appearance of a shoot upon them.

The water was conveyed by small ditches on the highest parts of the field; from whence it passed mostly under ground, to the lower spots; and thus, in ten or twelve days nearly the whole field became wet. On the third day, I could plainly discover an improvement in the corn, so far as the water made the land wet on the first day; and thus the improvement progressed throughout the watered part of the field, with this exception only, that on the lower end of the field, (where the water arrived last,) the corn was only in a small degree improved by the water; because of its irrecoverable state. I am conscious that this watering experiment has made me sixty barrels of corn, and if I had turned the water on twelve or fourteen days sooner, I have no doubt but that I should have made fifty barrels more.

Living at some distance from a manufacturing mill, and my attention being mostly turned on tobacco, I have not for several years, till this, made any wheat for market; nor did I ever make much; therefore, it cannot be expected that I should say much on its culture.

Wheat is a plant of tender constitution; it is liable to rust, blight and smut, and when in the stack it is frequently damaged, and sometimes ruined by wevil. It thrives only on well tilled ground, and is less liable to disease on land which will absorb water quickly. Clover fallows and tobacco land, produce the most abundant crops of wheat, and land on which scrapings from about old houses, or other strong manure has been spread are most liable to the diseases above mentioned, as also a disease in the root caused by insects. To preserve wheat from wevil, it is only necsssary to get it out quickly after harvest, and if cleaned or packed in the chaff it is equally safe.

On our best lands, two bushels of seed wheat are proper for an acre; on good land one and a half, and on ordinary and poor, one is sufficient.

One who cultivates large crops of tobacco, should never attempt to grow wheat for market, and one who grows wheat for market should not plant tobacco. The tobacco planter has no time to fallow for wheat, and wheat sown on corn land is a miserable business; moreover the planter will need all the wheat, rye and oats which his corn land can produce, for the consumption of his family and stock.

The fallowing for wheat should be done with four horses, and the sod should be turned completely bottom upward, so that no vegetable matter can be seen on the fallow, and prepare the fallow for seeding; the break harrow must be used when the ground is moist, then the cultivator, and the seed may be covered by the same instrument.

A farmer can and should fallow, and sow in wheat sixteen acres for each laborer.

Let us make a calculation for six laborers.

In wheat	acres	100
Indian corn	do.	50
Rye and oats	do.	50
		200
In clover and other grasses		200
		400

A cradler can easily cut thirty acres in good time, provided no whiskey be carried into the field, and thus we find that 150 acres, (as above) can be cut and secured by five cradlers and seven or eight banders and stackers, and the wanted compliment can be hired.

Although I profess to know something of the culture, curing and handling of tobacco, yet as I have written a treatise on these subjects, which I propose shortly to publish, the reading of which would detain you an unreasonable time, I would beg to be excused for not speaking at this time on the subject, further than as follows, in the way of notes.

Let no one cultivate tobacco who has a sufficiency of land for farming.

Let no one cultivate tobacco who does not make it his principal market crop.

Let no one cultivate tobacco who cannot force an acre to produce 1250 pounds of merchantable tobacco.

Let no one cultivate tobacco who is not willing to work in it, both day and night, in summer, fall, winter and spring, in wet, dry, hot and cold weather, to toil and to sweat, to be troubled and perplexed, to wash his hands at least three times a day, and wear a dirty shirt.

Let no one cultivate tobacco who does not know when it is ripe, and when in prizing order; and lastly, one should know its value when at market, otherwise he may be cozened by a beardless trader.

With six laborers can be cultivated in tobacco,

		acres,	16
Do.	do. in Indian corn,		40
Do.	do. in wheat, rye and oats,		40
			96
Do.	do. in clover, &c.		96
			192

(From the Lynchburg Virginian.)

HEMP.

The undersigned, being requested by the Amherst Triune Society to prepare a Treatise on the culture and management of Hemp,—with diffidence and respect performs that duty, and begs leave to report:

The cultivation of hemp is well suited to the middle and western states, and will be found to grow best on land with a deep black mould, formed from the decomposition of vegetable matter. Lands of this description will be found in the mountains, and on bottoms and ravines near the creeks and rivers; and any lands that have an open free soil, will, if manured, produce good hemp.—The hemp crop does not require much sun: hence it is that lands with a northern exposure, if rich, will be found to answer well.

As this crop derives its principal sustenance from the tap root, it becomes important that the land should be well broke, not less than six inches deep, and this should be done in the winter, in sufficient time for the land to pulverize before the spring. The land should have at least two ploughings with a two horse plough, and then at suitable intervals, and should be freed from every species of vegetable growth, and well harrowed. It is then prepared for seeding. But the seeding should not take place until there is a favorable spell of growing weather. If the weather is favorable the seed will vegetate and come up in four or five days; and if the weather remains seasonable for ten or twelve days, the young hemp will cover the ground, by means of which the moisture will be retained, and the crop rendered certain. The seed may be sown in the proportion of one and a half to two and a half bushels to the acre; and then it should be well harrowed two ways with a two horse iron-tooth harrow. The seeding may take place at any time between the first of April and the first of June. A thick sowing is always to be preferred; and no danger is to be apprehended from overcharging the land with seed. The land will force up so much as it is able to bear, and the balance will remain under ground, and perish without any prejudice to the growing crop. By a thick sowing you reduce the size of the stalks, which increases the quantity and improves the quality.

As soon as the hemp gets fully in the blossom and the dust flies freely from the blossomed hemp, you may proceed to cut or pull your hemp; and if your hemp is of moderate size and the land free from stone, there is no difficulty in cutting with a scythe and cradle. The instrument most to be preferred is a strong bramble scythe, about three feet long, with a strong cradle, made something taller than what is used in saving grain. With such an instrument, a hand will save at least half an acre per day. If your hemp is pulled up, you may cut off the roots. The hemp, after being cut or pulled, should lie on the ground six or seven days in order to become well dried; and then it may be put into stacks, or sheltered in a house.—The latter is to be preferred. When your hemp is cured, you may proceed to prepare it for the brake or machine. This may be done by water or dew rotting—the former process always to be preferred. By water rotting, the quantity is increased and the quality improved, and it will command a much better price in the market.

This should be done in pools or ponds prepared for that purpose, where the hemp should be immersed in clean water, and weighed down with timber, and if the weather is warm, it will be found that from five to eight days will be sufficiently long for it to remain in water. It must then be spread out and well dried. When that is done it should be kept free from the weather until prepared for market. By dew rotting, the hemp is rendered dark and unsaleable. But it is believed that if it was spread out on meadows and green fields in the month of November, and continued out through the winter, it would become bleached, without injury to the staple, and command a good price in the market. Some of the growers of hemp have broken it, in the unrotted state, by the aid of machinery. But hemp prepared in that way is unsaleable for most purposes, and is entirely rejected for the use of the navy. The breaking of hemp may be performed by hand-brakes or by the aid of machinery, which may be operated by horse or water power, (the latter to be preferred) and it is to be believed that machines of that kind may be constructed, at an expense that will be within the reach of every neighborhood. To break with machinery is to be preferred on account of despatch and the saving of labor. When hemp is raised within five or six miles of a machine, it may be hauled that distance, and broken on shares or sold in the stack, to the owner of the machine, at a price that will amply remunerate the grower.—The preference that is given to water rotted hemp in our markets should induce every grower of that article to prepare it in that way, for while dew rotted hemp will not command more than 125 dollars per ton, the water rotted will command 180, in our own markets. It now seems to be admitted that the staple of the American hemp is equal to that of Russia or any other country, and all that is wanting is a suitable preparation. If a suitable attention was directed to this subject, in a few years we might drive the foreign hemp entirely from our markets.

The cultivation of hemp promises to the grower a much better profit from his labor than any other crop raised in Virginia One acre of good land in hemp will produce from 5 to 800 lbs. of merchantable hemp, which, if well prepared, will be worth at least eight dollars per hundred; and one able bodied man will manage six acres in hemp, in addition to an ordinary crop of grain. And there is another consideration which should strongly recommend the hemp crop to the attention of the agriculturists; and that is, that it is the safest and most certain crop raised in Virginia.

The quantity of hemp and flax imported into the United States shows the extent of the demand, and that is increasing. And there is no other country except England, that uses an equal quantity. The hemp, flax, cordage, sail duck, and cotton bagging imported into the United States in 1824 amounted to $6,138,890. All these articles might be raised and manufactured in our own country, and the heavy drain upon the money of the country prevented.

The duty imposed by our government on hemp and flax, and fabrics made of these articles, when imported from foreign countries, will secure to the American grower and manufacturer of these articles a certain profit on his labor, more likely to become permanent, than any other thing to which his attention can be directed.

How far hemp is to be regarded as an exhausting crop, I am not prepared to say. But it is clearly much less so than either corn or tobacco.

The undersigned regrets that the performance of this duty had not been assigned to a more competent hand. The importance of the subject is one that demands the best talents and experience of the country. All of which is respectfully submitted.

David S. Garland.

LIVE FENCES.

Mr. Smith: *Brandywine, Nov.* 20, 1830.

I have observed some few of your columns, in late numbers of the American Farmer, occupied by essays on *live fences,* taken from a paper called the "Western Tiller." Those sketches on that very important subject, are worth their room in your very useful paper, coming from practical men, as I apprehend. Many of the observations coincide with my own at a former period, when I, as a farmer, was on the pursuit of the same object, (upwards of twenty years past.) At the time your present paper took its rise, (1819) I was ardently engaged in hedging. The then Editor sent me his first copy, enclosed with a request to aid his undertaking by some useful communications on *Agriculture.* I did not believe myself competent to do much on that head, except it was in the culture and management of hedges. This, I am not ashamed to say, was my hobby—because my pursuit was crowned with complete success: as my neighbourhood evidently at the *present day* exhibits the best specimens of living fences that are in these United States. My essays, as far as then supported by experimental facts, were published in the first as well as several succeeding volumes, with some drawings taken from those matured.

But in order to rectify some recommendations that are now held out in one of the late numbers of the Farmer, in the treatment of the haws, I shall be able to cast further light on that point—that is, the *keeping the seed in a wet* and frosted condition through the winter—said to be taken from the practice of "Thomas Main, of Georgetown, District of Colombia." I know that was his practice, as I paid him a visit on that subject in 1809. He seemed very close in his replies to my inquiries then. I afterwards found he was about to publish a book on that business; and that practice has been generally adopted since to prepare the haws.

But this did not satisfy my mind on that head, although the seed requires two years preparation in that way, the Virginia thorn that is most in cultivation now is a very different kind in its nature, as it regards facility in propagation. I made some trials by keeping the seed *dry* all winter, after being liberated from the pulp, as recommended in the former paper; and by soaking them in water a little warm two or three days previous to planting; they vegetate as readily as many other seeds.

After making one trial with success in this way, I had an ample trial, by sending some to Europe, that had been hung up in a bag in a room all winter in a dry state. Sir John Sinclair, the founder of the board of agriculture in Scotland, having read some of those essays before noted, and observing the two kinds that I recommended as best for hedging, he wrote for some seed of both kinds in 1819. I procured the seed that had been dry all winter, as before mentioned; filled the box with some quicks of both kinds, and packed in the seed on the top with written directions to treat them as I have noted above, and shipped them from this country on the 10th of March, 1820. They arrived time enough to plant in that northern climate and grew, as he wrote, *eighteen inches high that season;* and he also observed they would be a valuable acquisition to that country—never having been introduced there before: he also wrote for ten pounds sterling worth of that kind of seed, they having but the one kind of thorn in Great Britain, as far as I can learn, that is the white blossomed haw thorn, the same as in France and most of the European countries We abound with seven or eight varieties.

But the English thorn that has been planted in this country, has never made an effectual fence in any instance that has come under my notice to the present time, although Cobbet recommends importing them to fence here, saying they will grow as well here as in England. The solitary old stocks introduced here by our forefathers, believing as he did that our fencing must also be brought from that country, remain as lasting monuments of folly.

We know there are many products that will make live fence with due care and good management. But why resort to any thing but thorn, that seems adapted so well to the purpose and such a variety of them? It seems that the great author of nature's law had limited its growth to a shrub, instead of a timber tree, and armed it with an armour of defence for the purpose.

The cedar being an evergreen, is recommended as very handsome. This is all handsome on paper. But when a wanton bullock sets to work for his sportive amusement with his horns, its beauty vanishes and he finds it more suitable for a play thing than a barier to his advances to better quarters.

But, what is more serious, is the antipathy of plants, which ought to be known. *The cedar is certain destruction* to the thorn that is now most generally cultivated, (the Virginia.) Much hedging has been ruined by its poisonous efflovia. The walnut also is equally pernicious—and has demonstrated its unfriendly influence in a multiplicity of instances. I speak now of the Virginia thorn, as that is the most cultivated in my district of country. I am induced to believe there are many antipathies as well as affinities, amongst the vegetable kingdom, that we pass over without observation.

I once observed a handsome bed of seedling quicks raised in a garden, that had vegetated from the seed sown in a plat of mellow, kindly soil, and promised fair for a handsome crop; but when the hot season came on, a certain portion of the plat disappeared, and it was observed the missing part was precisely the ground that had raised a crop of onions the season previous. I have advocated live fences, and communicated my experience through the American Farmer frequently, years past, in order to elicit information from other experimentalists; but nothing has been seen on that head that I recollect, till lately this collection of various sketches taken from what was published in the "Western Tiller." The comparative cost with that of post and-rail, is from my own calculation then, though it is found to operate more in favour of the live fence now, by the better understanding the culture at this day and training also. I am no longer a farmer, but hope that important branch of husbandry will not be neglected by landholders. Very respectfully from

C. Kirk.

(From the Southern Agriculturist.)

On Keeping Slip Potatoes—by R. T. Morrison.

Christ Church Parish, Oct. 24, 1827.

Mr. Legare:

Sir,—Agreeably to your request, I will endeavour to give you a plain statement of my mode of preserving my slip potatoes from the rot; and also the manner of making my cellar.

The ends of the cellar are placed nearly north and south, the door is placed in the south end, and the part unoccupied by the door is enclosed by puncheons, set up perpendicularly, that the irregular openings between them may admit air. The ridge pole projects over the door about four feet, and is covered with dirt to ward off the cold frosty air.—The other part is made as planters usually make them, except being covered very lightly with dirt, enough only to keep the fennel or grass that is put on from meeting. I leave the top, on both sides, entirely bare of dirt, one foot on both sides, which remains in that state until the cold rainy season sets in, or until near Christmas, (showers of rain that fall in the meantime are not regarded, as they will do no harm,) that the moisture rises from the potatoes may escape freely. The cellar is filled with potatoes to the top.—When there is a space left between the potatoes and the ridge pole, there appears to be a body of moist hot air concealed there, which causes the potatoes to rot.

I have heard a great many reasons assigned by planters for their potatoes rotting; such as cold weather, green puncheons, taking them in after night, planting them in low ground, &c.; none of which I believe to be the true reason, as I have tested them all. My hands are now splitting puncheons. About five years ago, I made a larger crop of potatoes than usual. After filling my cellar, I had still several acres to dig; I had then to split puncheons for another: they were put up, and covered with green fennel, and the potatoes put immediately in, and they kept well; not one in a hundred rotted. Since that time, I split my puncheons when I am most at leisure. I have put the potatoes that grew in low wet spots, and where I found many rotten while digging, on one side of the cellar, where I could observe if they should rot, and they have invariably become frequently dry, and kept well. After I have selected a sufficient quantity of small potatoes for seed, I then put in the small and large and cup potatoes together, and separate them as I use them. After I have filled the cellar about one third full of yam potatoes, I then mix every kind that I raise together; the red potatoes keep much better in this way.

It is thirteen years since I adopted the above method, and I confidently assert, I have not lost five bushels in one hundred all that time. The plain reason that so many crops are lost is, the cellars are made too close: no moisture is allowed to pass off; it rises to the puncheons, and falls in drops upon the potatoes, which causes them to rot. When I cover up the top, I leave holes therein about two feet apart, the whole length of the top, and cover them with pine bark. If I find the puncheons at any time the least moist, I have the holes enlarged, and they will become dry. In a cold time, the moisture is seen escaping through the holes so freely, that any one not acquainted, would suppose there was a large fire in the cellar. When the top is covered, there is also a sufficient quantity of dirt laid on the cellar, to prevent the rain soaking through. My seed I put in hills, about fifty bushels in each, and cover them with pine straw and cornstalks, and leave a hole on the top that the moisture may escape, and cover it with bark; the hole must be clear, that the potatoes may be felt with the hand, and cover them thick with dirt; when put up well in this way they will keep perfectly sound. Yours respectfully,

R. T. Morrison.

BROOM CORN.

This crop has become a very important one in this part of the Connecticut valley. More acres were planted the last spring than in any previous season, but not far from one fourth of the brush, and the greater part of the seed, were destroyed by the early frosts. In consequence of the diminished quantity, increasing demand, and other circumstances, the price of broom-brush has advanced rapidly, and is now about 100 per cent. higher than it has been for some years past. It is an object of speculation, and large quantities have been sold and re-sold within a short time. The price a few days ago was from 8 to 9 cents per pound; it is now 10 cents, and it is reported that some has been sold at a still higher rate. A man recently purchased 7500 pounds at 8 cents, and sold it immediately at 10 cents. We have heard of one hard case—a farmer who planted several acres last spring made a contract at the time of planting, by which he is bound to deliver all his brush at 5 cents per pound, which is only half the present price.

[*Hamp. Gazette.*

Mr. Jabez H. Hammond, Windsor, Vt. has a cabbage showing twenty-four good hard heads, which grew on one stump.

HORTICULTURE.

(From Prince's Pomological Magazine.)

APRICOTS.

HEMSKIRKE.

In the Pomological Magazine the following details are given in regard to this fruit.

"The origin of this variety is not known. It was sold by the late Mr. Lee under the present name, but has hitherto escaped public notice, of which its great good qualities render it far more deserving than many of those more commonly known.

"It bears freely on an east wall, where it ripens thoroughly by the end of July, acquiring a high luscious flavour, superior even to that of the Moorpark. From the Royal apricot it differs in having a more tender flesh and richer flavour, and also in the greater sweetness of its kernel.

"Wood short-jointed, like that of the Moorpark, with enlarged projections under the buds; leaves broad, deep green, very like those of the Moorpark; flowers of the ordinary character. It may be here remarked, that apricots do not vary in their flowers, except the masculines, in which they are smaller than ordinary. Fruit middle-sized, roundish, slightly compressed, very like a small Moorpark, from which it is only distinguished externally by its size; flesh very bright deep clear orange, more tender and juicy than the Moorpark, with a particularly rich delicate flavour, resembling that of an excellent Green Gage plum; stone much smaller than that of the Moorpark, without a previous passage; kernel nearly sweet."

BLACK APRICOT.

This tree is the strongest and most rapid in its growth of its class; it does not, however, incline to grow so lofty as some others, but spreads its branches widely, and forms a large broad head like the common cherry plum, and it may be considered a fruit intermediate between the plum and the apricot. Duhamel states that its native country is not known, but that it is supposed to have originated in the east, other writers remark that Siberia is its native country. Be this point as it may, it is a tree of most hardy character, and I think far more so than any other of its class. Duhamel mentions that the trunk is almost invariably crooked, but I have not found it particularly so; the bark is peculiar, and of an ash-gray colour, with numerous cracks and crevices; the leaves are oval, two inches in length, very finely indented, smooth, shining on the under side, and borne on petioles of about an inch long, which have two to four small glands; the flowers are usually white, of about an inch in breadth, generally solitary and dispersed one by one at those points which formed the axils of the leaves the previous year; the fruit is round, very slightly compressed, of moderate size, measuring from thirteen to fifteen lines in its greatest diameter, and supported on peduncles of four to five lines in length; the skin is a violet red, very dark or blackish, on one side somewhat velvety, and is marked by a longitudinal line, which extends from the insertion of the peduncle to the summit of the fruit; this line is only remarkable for its colour, but does not form a distinct groove; the flesh is reddish, especially that part which is near the skin, the residue is yellow or a brownish-fawn colour and strongly adheres to the stone: the flavour is sweetish, not very rich, and is sometimes attended with a small degree of bitterness or sharpness, similar to that of particular Damask plums; the stone considerably resembles that of a plum, and is seven and a half to eight lines in length, and six and a half to seven in breadth, and terminates in an acute point; the sides are compressed, and one is rather more convex than the other; the period at which the fruit ripens is later than that of most other varieties, being usually the latter part of August, and sometimes the first of September. It is both pleasant and peculiar, but I have not found the tree to bear well, perhaps, however, it may in a different climate; it has altogether a wild and uncultivated aspect, being the natural variety of a species distinct from other apricots; but we may expect similar improvements in the seminal varieties that will be produced from it, as have resulted from a like course with the other species: and it is singular that experiments in this respect have not been already made, as it is by the varieties of this species that we may be enabled to extend the successful culture of the apricot much farther to the north; for it is my belief that this species will support the winters of lower Canada.

PURPLE PEACH-LEAVED.

This is a variety of the preceding, and although the foliage is very different, the leaves of this being longer, narrower, and irregularly indented, still it is so closely allied in reality, that branches will often present themselves on the trees of this variety, bearing the foliage of the other, and by their great contrast on the same tree they form a striking singularity. Sometimes the lower section of a branch will exhibit the broad foliage of the preceding one and the upper section of it the narrow leaves peculiar to this. The fruit is the same as the other variety, and the tree equally hardy.

SIBERIAN. *Pr. cat.*

The present is a distinct species; the leaves are oval, acute, dentated, and supported upon long petioles, measuring six lines or thereabout; the fruit is sessile, the size of a small plum, and covered with a velvety skin, which is yellow on the shaded side, and bright red next the sun; the flesh, of which there is not a great deal, is fibrous, almost dry, and of acid flavour; the stone contains a kernel which is slightly bitter. This species is originally from Siberia, where it grows in mountainous localities, and it is seldom cultivated except in botanic gardens. It is known in general under the title of Siberian Almond, and is so placed in the 25th edition of my catalogue; but Duhamel having ranged it in the class of apricots, I have now adopted the same course. In the London Horticultural Society's catalogue, this is confused with the Peach-leaved apricot, and the two are united as one fruit, when none whatever are more widely distinct.

PEACHES.

EARLIEST WHITE NUTMEG.

This French variety many pomologists have considered synonymous with the Common White Nutmeg of our gardens; but it is a very different fruit, smaller in size and consequently inferior in value, though earlier at maturity. The genuine kind I have now under culture in my collection, and as this is called the White Nutmeg by English Writers, I have added the term "Earliest" to distinguish it from our more common variety.

The flowers are rather large, of a very pale rose colour or nearly white; the fruit is very small, being not more than an inch, either in diameter or height; it is on one side marked with a very deep groove, extending from the base to the summit, which is terminated by a small pointed teat or mammelon; the skin is delicate, covered with down, and whitish all over, and it is but very seldom that it becomes coloured with a slight degree of red, even on the sunny side, and only when the heat is very great at the time it attains to maturity; the flesh is white even next to the stone, succulent, full of very sweet juice, which possesses also a musky perfume, that renders it very agreeable; the stone is small, whitish or partially coloured, and slightly adhering to the flesh. This is the earliest of peaches, ripening at the beginning of July, and the ants are very eager to attack it.

RED NUTMEG. *Pr. cat. Lon. hort. cat. and other English publications.*

This tree has large rose-coloured flowers; the fruit is larger than that of the preceding variety, being fifteen to sixteen lines in diameter, by thirteen to fourteen in height; the longitudinal grove, which divides it lengthwise on one side, is not deep, and it is but seldom that it terminates in a mammelon or teat, but there are two small cavities at the place where that would have been situated; the skin covered with down, is of a pale yellow colour where shaded, and tinged with bright red next the sun; the flesh is white, melting, slightly touched with red under the skin on the sunny side. but without any red fibres near the stone, and is full of juice, possessing a sweet and musky flavour; the stone is seven lines in length, six in diameter, and five in thickness—it in general separates pretty easily from the flesh, but at other times cannot be detached without much difficulty; it is at maturity about the end of July or early in August, and the ants and earwigs are very partial to it.

SMALL, OR PETITE MIGNONNE. *Pr. cat.*

This variety, besides being larger than the Red Nutmeg, is also distinguished from it by its small flowers of a very pale rose colour, which are but eight to eight and a half lines in diameter; the leaves are furnished at their base with reniform glands; the fruit is commonly seventeen to eighteen lines in diameter, and in general nearly of equal height; one of its sides is marked by a longitudinal groove, not very distinct, and the summit is terminated by a very small teat or point; the skin is thin, covered with down, and tinged with red next the sun, the residue being wholly whitish, or sometimes more or less speckled with red dots; the flesh is white, moderately melting, rather sweet, and considerably perfumed, and separates readily from the stone, which is whitish or a very light brownish red, and is but eight lines in length, six in breadth, and five in thickness. This is one of the first peaches in ripening, and in early seasons is in eating at the end of July, and in ordinary years about the middle of August.

(To be continued.)

(From the New England Farmer.)

ORNAMENTAL TREES.

MR. FESSENDEN,—Many persons who have cultivated the common Double Purple, and Double White Althea Frutex, and found them too delicate to support the winter uninjured, are not aware that there are other kinds far more hardy; several of which, having originated in this vicinity, have become completely naturalized to the locality, and I think will support your winters also These are the Double Blue Striped, and the Double Pheasant Eye. There are also some single varieties, which are very beautiful and showy, and which I have never seen elsewhere, they having originated here—the two finest of these are the Deep Red, and the Carnation Striped.

While on the subject of Ornamental Trees, &c. I will mention some others that are of a very interesting character.

Magnolia Cordata, or Yellow Twice Flowering Magnolia—This is one of the most admired species of its class, and will flower freely at the height of two feet, and continue to do so until it forms a tree of considerable size. It is highly interesting from being the only species with flowers of this color, and the more so, from its producing them twice in each season; once in May, and again in August, whence it has obtained the title of "Twice Flowering Magnolia." It is perfectly hardy, and will withstand the winters of the state of Maine.

Magnolia Oberata, or Chinese Purple Flowering Magnolia.—This is esteemed for the uncommon richness and beauty of its flowers, which, in the house are produced in March. They are bell shaped, of a delicate violet purple outside, and white within, from which circumstance it is sometimes called the "Two Colored Magnolia." It supports our winters unprotected in the vicinity of New York, and perhaps may do so farther north. It sometimes produces flowers a second time in the month of August.

Magnolia Conspicua—Chandalier Magnolia, or Yulan.—This has very large flowers of a pure white color, very splendid in appearance, and in shape like a chandelier. In the house it flowers in March, but will support our winters unprotected. A tree is mentioned by the London Horticultural Society, as growing at the seat of Mr. Abraham Hume, in England, which is 14 feet high, 15½ feet broad, and which produced 956 flowers in one season.

Silver Leaved Abele.—This tree is highly calculated to ornament pleasure grounds, &c. It attains to a large size, and is of quick growth; but its great beauty consists in its foliage, of a fine green, on the upper surface, and of a perfectly white silvery hue on the under side. The leaves being supported by slender petioles, are easily agitated, and hang quivering, with the least breeze, like the trembling aspen; and the green and white surfaces of the leaves mingled thereby, present a contrast which, at a distance, gives to the tree an appearance of being covered with numerous flowers. This tree has also the advantage of holding its foliage late in the season.—It is of the most rapid growth and flourishing appearance, and at present is very much in request for ornamental grounds, &c. Very respectfully,

Wm. Robert Prince.

Linnæan Botanic Garden, Nov. 1, 1830.

(From the New England Farmer.)

SHORT DIRECTIONS FOR TRANSPLANTING TREES.

Food is as necessary to the health and growth of plants, as it is to animals. The best food for plants is rich, pulverized earth, or rather the vegetable matter which it contains. That your trees and shrubs may live and thrive, proceed as follows: dig for your trees holes at least three feet in diameter, and eighteen inches deep, and for shrubs a proportionate size and depth, throwing away the lower spit of earth. Then fill up the hole to a proper height for setting the tree, with rich surface earth, or perfectly rotted manure, blended with four out of five parts of earth. Set your tree and cover with surface soil, treading down when the roots are covered with earth. See that the roots are trimmed of all bruised and broken parts; that they are separately extended in their natural direction; that fine earth every where comes in contact with them. A potato or two, or a gill of flaxseed or oats, may be advantageously placed in the hole before the tree is set, and a pail of water turned in after the hole is two thirds filled. The rich earth affords nutritive pasture for the young root to range in; the potatoes, &c. keep the ground loose and moist, and enable them to roam freely; and the water brings the earth in contact with the roots, and prevents them from becoming mouldy. Keep the ground free of grass as far as the roots extend; for these exhaust the moisture and nutriment necessary to the plant, and exclude from the roots air and heat, the indispensable agents to vigorous growth. Treat your trees as you would favorite corn hills, which you wish to make the most of, except give them no unrotted dung. Washing with a strong ley in May will destroy insects, and promote the health and vigor of your trees. To persons living remote or who are unable to obtain their trees for *early* spring planting, we recommend that they procure them in the autumn and *lay them in by the heel,* as nursery men technically term it; which is merely to dig a trench on a dry piece of ground, laying the earth on one side—the trench wide enough to contain the roots; put the roots into this, close together, letting the stocks rest in an inclined position upon the bank of earth and then cover the roots and a part of the stocks with earth. In this way they escape injury from the frost of winter, and are in readiness for early planting in the spring. Besides, better plants are generally obtained in the autumn than in the spring, after nurseries have been culled.—*Buel.*

(From the New England Farmer.)

TRANSPLANTING TREES.

Mr. Fessenden,—As there has been considerable diversity of opinion exhibited with regard to transplanting fruit trees, I would recommend in order that horticulturists may be satisfied which is the best time to remove and plant trees, to try the following mode with every kind of fruit trees, cultivated in New England. In the autumn, any time after the frost has had a proper effect, take the trees up, *carefully preserving the roots,* lay them in with an inclination of about twenty-five to forty-five degrees in the coldest situation; cover the roots and part of the stocks six to twelve inches deep; during the severity of winter cover the tops with mats or any material to exclude the rays of the sun; as spring advances throw some rubbish over the roots if necessary to retain the frost, until the ground becomes elsewhere warm and vegetation has commenced, when they may be transplanted.—By this mode of management no perceptible injury will be sustained in consequence of their removal—the trees will generally grow as vigorous as they would have done in their former situation. From experience I am satisfied this is decidedly the best way of transplanting trees. I refer with much satisfaction your readers to the reply of *Elias Phinney,* Esq. to the Hon. Mr. *Lowell,* chairman of the committee for the Massachusetts Agricultural Society as inserted in the New England Farmer, vol. 6, page 122, for a successful experiment in the transplanting and management of apple trees.

Jona. Winship.

Brighton, Nov. 8.

(From the New England Farmer.)

MUSHROOMS.

Mr. Fessenden,—I am not aware that much attention has been devoted to the cultivation of the vegetable named at the head of this article, in this section although some attempts have been made in one or more of the southern states, but with what success I am not informed.

The mode of constructing the beds, the collecting of the spawn, or originating it, and of propagating from it, are described with much particularity by Loudon, in his Encylopædia of Gardening, and in Fessenden's New American Gardener, as well as by McMahon, in his Treatise upon the same subject.

It was my intention to have transcribed from these works, some of the directions in relation to the culture of the mushroom, for the benefit of those who might be disposed to attempt it. But to do justice to the subject, and to place before your readers all the directions needful to a complete understanding of the manner of preparing the materials, to the formation and spawning of the beds, or of originating the spawn, I find would occupy much time and labor that may be dispensed with, and you can make such selections from these works as you may deem requisite, and thereby confer a particular favor upon the public at large, and the writer in particular.

My attention has recently been directed to this subject by a highly respected and accomplished amateur horticulturist, whose cultivated taste induces, and whose affluent circumstances afford him the means, of extending the blessings of horticulture. In a letter received from him, he remarks.—There is one production of the garden which is much, I may say, wholly neglected here, (New York) and I hope you may have successfully attempted it, to stimulate us. I mean the *mushroom.* I made the attempt this fall, but I could procure no spawn that was good from the nursery men here, and the private gardens are destitute of it. The luxury has become very common in Europe, and a recommendation in the New England Farmer, *as on all* occasions, would be well received here.

Mushrooms may be produced without planting the spawn, or, as it is termed, without spawning the beds. The president of the Massachusetts Horticultural Society caused a bed to be prepared and planted with asparagus roots. It was composed of horse manure, that had laid two or three years in heaps, the bed was made as such usually are for such a purpose. One single shoot of asparagus only appeared to reward his labor, but in the autumn the surface of the bed was covered with mushrooms, and the supply was abundant for the whole season. The method recommended by *Loudon* for raising this vegetable without planting the spawn, is more simple than is the preparation of the bed for the raising of asparagus. He observed, "after having laid a floor upon the surface of the ground, of ashes, stone, chips, gravel, or brick-bats, so as to keep the ground quite dry and free from under-damp, lay a course of horse droppings, new from the stable, six inches thick. They must not be broken, and the drier they are the better. They may be collected every day if your stable does not furnish enough at once to complete the first layer of the above thickness. But they must not be allowed to ferment or heat. The bed should be exposed to the air as much as possible while making up, but carefully defended from wet if out of doors, or it may be made in a cellar, or under a shed. When the first course is quite dry, and supposed to be past a state of fermentation, cover it with two inches of light dry earth. If sandy so much the better. It is immaterial whether it be rich or not, the only use of the earth being for the spawn to run en mass in. Then lay another course of droppings and earth over as before, when it has fermented. Then a third in like manner, and the bed is completed. It should be a little rounded in order that it may not be more wet or moist in the centre than on its sides. This may be effected by the formation of the floor at first, and the bed will then be of equal strength in all parts. Beds are sometimes made with two courses, instead of three, and when materials are scarce, three four-inch courses, with an inch covering or two have been found to answer."

I may trouble you again upon this subject. My present purpose is to awaken attention to it. The Horticultural Society will probably offer a premium as a stimulus to the cultivation of the mushroom.

Zebedee Cook, Jr.

Dorchester, Feb. 20, 1830.

GREEN PEAS IN NOVEMBER.

We were presented on Friday last, Nov. 12, by *John Henshaw,* Esq. of Roxbury, with a basket of green peas, being the third crop raised by him this season, in the open air, from our Early Washington Peas. The new vines are still green, and uninjured by the frost.—*N. E. Farmer.*

LONDON HORTICULTURAL SOCIETY.

There were exhibited at a late meeting of this Society one hundred sorts of apples from Mr. Hugh Ronalds. A bundle of asparagus consisting of 125 heads, weighing twenty-eight pounds, from Mr. Wm. Robert Grayson, of Mortlake. A scarlet Brazilian pine apple from the garden of the Society. Asparagus, blanched in tubes from the garden of the Society.—*N. E. Farmer.*

POTATO ONIONS.

This curious variety of the onion is very early and mild They should be planted in common dry situations, in the autumn,—covered over about two inches deep in gardens. The small ones should be planted out four inches apart—the large ones twelve to fourteen. They are generally ripe about the 10th of July, and yield eight to ten fold.—*N. E. Farmer.*

Snow fell near Lake Champlain, night of 3d inst. and the mountains between Whitehall and Troy were covered with it.

LADIES' DEPARTMENT.

(From Mrs. Spencer's new monthly publication, "The Young Ladies' Journal.")

"'TWAS BUT A BABE."

I asked them why the verdant turf was riven
From its firm rooting, and with a silent lip,
They pointed to a new made chasm among
The marble-pillar'd mansions of the dead.
Who goeth to his rest in yon damp couch?
The tearless crowd pass on. "'Twas but a babe."
A babe! And so ye poise in the stern scales
Of calculation, the fond bosom's wealth,
Rating its priceless idols as ye weigh
Such merchandise as moth and rust corrupt,
Or the rude robber steals. Ye mete out grief
Perchance, when youth, maturity or age
Sinks in the thronging tomb; but when the breath
Grows icy on the lip of innocence
Release your wearied sympathies, and say
"'Twas but a babe."

What know ye of *her* love
Who patient watcheth till the stars grow dim
Over her drooping infant, with an eye
Bright as unchanging hope, if *his* repose?
What know ye of *her* wo who sought no joy
More exquisite, than on his placid brow
To trace the glow of health. and drink at dawn
The ardent lustre of his waking smile?

Go ask that musing father why the grave,
So narrow and so noteless, might not close
Without a tear, and though his lip be mute,
Feeling the poverty of speech to give
Fit answer to thee; still his pallid brow,
And the deep agonizing prayer, that load
Midnight's dark wing for him the God of strength—
Who dealeth balsam to the broken heart,
May satisfy thy question.

Ye who mourn
When e'er yon vacant cradle, or the robes
That deck'd the lost one's form, awake a tide
Of recollected joy, can ye not trust
Your treasures to *his* arms whose changeless care
Passeth a mother's love?—Can ye not hope
When a few hasty years their race have run,
To go to him, though he no more on earth
Returns to you?

And when glad faith doth hear,
To cheer her 'mid the ceaseless toil of earth,
Some echo of celestial harmonies,
Archangel's praises, and the high response
Of seraphim, with cherub's thrilling chant,
Think that your babe is there. L. H. S.

MISCELLANEOUS.

Indian Justice.—Our town during the last week was visited by various tribes of Savages. On Saturday last they had a ball play, which was animated and well contested. During that night, in a drunken frolic, one of them was killed in our streets. The person who perpetrated the act surrendered himself to the relations of the deceased. On Sunday, he went through our streets, talking composedly of his anticipated execution. About ten in the morning of that day, many of our citizens repaired to the spot where the vengeance of the connexions of the murdered was to be gratified. Several of our most respectable townsmen joined and offered a considerable sum of money for his pardon. It was refused: the surviving brother declaring that no money could purchase his redemption: the criminal expressing no anxiety for escape. No gun could be procured, when the victim stating his objection to the delay, and threatening to leave the ground if he was not immedietely punished, the brother advanced, and with a spade knocked him down and split open his scull, exhibiting demoniacal expressions of joy at the accomplishment of the act.

We sincerely regret for the character of our country, that this circumstance occurred here. Our civil authorities should have arrested it. It was a violent and outrageous breach of our criminal laws. It was not from a want of proper feeling that it was permitted: the general impression was, that the Indians had a right to execute their own laws upon each other. So they may have in their own territory; but this deed was as much a murder as if one European had killed another in our parish.

Are not the men who sold the liquor to these savages, morally accessories to this outrage? Where are their consciences? Have they none? We do hope that there is some public spirit among us—that these violators of every honorable sentiment and every refined emotion may be brought forward, and be made to pay the penalty fixed upon those who shall retail spirituous liquors to the Indians.—*Alex. Lou. Gaz.*

Frauds in Cotton.—By the following article we perceive the merchants of Augusta have made a movement in a matter, in which we hope they will be seconded by those in this place, and in every place in the state. All are interested in maintaining the character of our most important staple, and no measures can be more conducive to that end, than the detection and punishment of frauds of the character referred to.—*Sav. Mercury.*

(From the Georgia Courier.)

In consequence of the frauds so frequently practised in the market, in packing cotton, the merchants are getting up a petition to the legislature to pass a law, punishing in some exemplary manner those guilty of such deceptions. It has been a common fraud lately to put prime cotton in the ends of the bale, and inferior in the middle; and some are said to be so adroit as to case the whole bale with prime, just precisely so deep as to avoid detection by every length of gimblet. We regret we have been obliged to speak of such arts; for they are among those whose cultivation does the country no credit.

SUGAR CANE IN MARYLAND.

A fine stalk of sugar cane, 4 inches in circumference, and more than 4 feet high, was brought to our office yesterday, from the farm of Wm. L. Brent, Esq. in Prince George's county, who planted one or two hundred canes by way of experiment, in May last. The cane which we saw, appeared to be well ripened, the juice abundant and sweet, and to all appearance as fine, we understood, as if it had been the product of Louisiana. Its maturity is not alone evidence of the extreme mildness of our present autumn, but shews also we think, that the plant is susceptible of being acclimated in latitudes much higher than those to which its culture has been hitherto confined.

[*Nat. Intel.*

The Turks, according to a modern traveller, have an ingenious method of avoiding certain nameless insects, which are too apt to disturb repose every where; they place their mattress on a table, the feet of which they put into pans of water.—*Morning Paper.*

[Some persons in this country place the feet of their bedsteads upon polished marble slabs. This is an effectual mode of avoiding annoyance from bugs in the room when the bedstead and bedding are free from them; the insects being unable to travel over a polished surface.]—*English paper.*

Drs. Hubbard and Knight, of New Haven, made an incision in the windpipe of a daughter of Mr. James Williams, of East Haven, two and a half year old, and with a probe removed a part of a chestnut, with which she was choked, and thus saved her life.

THE FARMER.

Baltimore, Friday, Nov. 26, 1830.

AMERICAN SEWING SILK.

At a late exhibition of the Agricultural Society at Milton, Northumberland county, Pennsylvania, Mrs. Tweed obtained a premium of five dollars for fifty skeins of sewing silk, made by herself, with no other implements than the reel and spinning wheel, and dyed in concoctions of garden flowers, with a portion of chemicals to set the dye. The worms were fed with the common Mulberry, (native.) A skein of the silk was sent to the editor of the Register of Pennsylvania, printed in Philadelphia, who shewed it to Mr. Du Ponceau, and the following letter was written by him on the subject.

Philadelphia, 10th November, 1830.

Samuel Hazard, Esq.

Dear Sir,—I am much obliged to you for the communication of the States' Advocate of the 4th instant, published at Milton, Northumberland county, in this state, which you have had the goodness to make to me, together with a sample of *green* sewing silk, made out of American cocoons, by Mrs. Tweed, of that neighborhood, for which she deservedly received a premium from the Union Agricultural Society established in that county, and which it is much wished to see imitated in all the others.

That interesting lady has been so kind as to make me a similar communication, by sending me a copy of the same paper, and a sample of *yellow* sewing silk, of her own making and dyeing, and of the same quality with that which you showed me. I have shown it to Mr. D'Homergue, who is a competent judge in these matters, and he is of opinion that it is not only equal but superior to any imported of the same kind. Perhaps, he says, the twisting might be more perfect, if it had been done with the aid of the proper machinery, which is not to be had in this state, unless it should be made at a considerable expense. He has never seen any American sewing silk which is not too much or too little twisted, because machines made expressly for that purpose can alone give at all times the exact degree of twist, which, if done by hand, supposing it should be with complete success, must employ so much time and labor that it will always be cheaper to purchase the imported article.

I observe in a note of the editor of the "States' Advocate," that Mrs. Tweed's silk was dyed in decoctions of *garden flowers,* and the colors fixed by chemical *mordants.* This does great honor to the ingenuity of that lady, because it is true, as the same editor justly says, that the colors, particularly the yellow, are very brilliant. But what most astonished me, is, that the worms which produced her silk were fed on the leaves of the common mulberry; by which I understand, *the American wild black mulberry.* I have always understood that the silk produced by worms thus fed, though in all other respects equal to any, was too much saturated with a thick gum, which could not be boiled away without injuring the material. I have been very desirous of ascertaining the fact by experiments; but have not yet been able to procure a sufficient quantity of cocoons of that description. The silk made by Mrs. Tweed would seem to solve the question; yet I shall do all my endeavors to obtain for the next season at least twenty pounds of such cocoons, and cause them to be reeled and converted into raw silk, and afterwards boiled into floss, by which means I shall be able to ascertain the fact beyond the possibility of doubt.

While I thus pay to Mrs. Tweed the tribute so justly due to her industry, ingenuity and patriotic exertions, I cannot suppress my regret at seeing the importance which is attached in this country to the making of sewing silk, and also vestings, suspenders, stockings, and other fabrics of the same kind, all which are made in Europe of the imperfect cocoons, and of waste and refuse silk, while we employ in these *secondary* manufactures the finest silk of our cocoons, which, even in its raw state, if properly reeled, would produce much more by being sold abroad than by being thus manufactured at home. Mr. D'Homergue has justly observed in his Essays on American Silk, that it is as if we employed the pure gold of North Carolina in making kettles and saucepans. It is not for sewing silk, nor for vestings, pantaloons, or the like, that we pay to France annually a tribute of eight or ten millions of dollars, for her silk manufactures; it is for the articles called lustrings, taffeties, Florences, gros de Naples, and many others with which women adorn their persons throughout the United States, and a variety of other stuffs, all made of that fine silk which we do not yet know how to apply to its proper use, and which we miserably waste, by employing it in the making of sewing silk and coarse fabrics.

We ought, however, to take warning from our Mexican neighbors. With the finest climate and the best soil for the cultivation of mulberry trees and the raising of silk worms, they began, like ourselves, with making sewing silk, and what is worse, they made it with a raw material imported from Spain or from China. They easily obtained manufacturers from abroad with their machinery, and they now supply themselves entirely with the most beautiful sewing silk in the world, which sells at home for nineteen and twenty dollars a pound; but not an ounce of it goes abroad, the price of it being too excessive, and that fineness not being required for the use of the article, which, it is well known, requires only to be strong and firm, as it is not perceived after it is employed: they also make shawls for themselves, some of which are very fine, and a few other articles of manufacture, all with imported raw silk. But mark the consequence, they plant no mulberry trees and raise no silk worms, because they find it easier, and in the beginning cheaper, to employ the foreign material. I am told they have lately began to plant a few mulberry trees in the neighborhood of Acapulco, on the Pacific, but it is easy to perceive that they will soon abandon that project, not finding a market for their cocoons, in the first place, because they do not understand the art of *reeling* or extracting the raw silk, and because the habit is fixed of employing the imported material, a great deal of which, I ought to say, passes through this country on its way to Mexico.

I fear we are treading fast in their steps, with this difference, that hitherto we have only employed our own native silk. But I am told that already some have begun to work China silk into vestings and other coarse stuffs, and I know that in the course of the present year, numbers of silk manufacturers of all descriptions, throwsters, dyers, weavers. &c. have arrived here from Europe, chiefly from England; I have had no less than five of the description of *throwsters*, that is to say mechanics whose business is the doubling and twisting of raw silk by machinery, inquiring of me where they could get work; and when they hear that China silk may be imported or purchased here at a moderate rate, then, perhaps, farewell to our mulberry trees and to our cocoons—they will soon undersell the Connecticut farmers, and oblige them to cut down their mulberry orchards.

I hope this mischief will be avoided, and that can only be done by introducing among us the art of *reeling*, and disseminating it through the United States. By this means markets will be brought to every farmer's door for his cocoons, the planting of mulberry trees will be encouraged, and the nation will be enriched by silk manufactures entirely her own.

I am respectfully, dear sir,
Your most obedient servant,
Peter S. Du Ponceau.

Remarks.

We have no doubt of the sewing silk of Mrs. Tweed being very good, because it is by no means a difficult process to make it, as is proved by the fact, that sewing silk has been made by many other ladies with the common wheels employed in the spinning and twisting of wool and cotton. It was lately stated that some was exhibited at an agricultural exhibition in Washington county, Pennsylvania, by a lady of that county; and the women of Windham county, Connecticut, employ no other than the above machinery. The opinion of Mr. D'Homergue is of no consequence; for, although he is pronounced to be "a competent judge," we have seen no evidence of it. His incapacity as a silk manufacturer was pointed out by Mr. Broadhurst, a silk manufacturer, in a newspaper of April last, in some remarks he made on a pamphlet on silk published by D'Homergue and Mr. Du Ponceau; and he has evinced his want of knowledge of the silk culture upon other occasions which it is not necessary to specify. So many notices of sewing silk made from worms fed on the native mulberry have appeared in the newspapers within three or four years past, that it is singular Mr. Du Ponceau should entertain any doubts on the subject; or that he should think it necessary to test the point by a particular experiment: and it is amusing to find that he intends to "ascertain the fact" by "boiling the silk into floss!!!"

If Mr. D. will visit the vicinity of West Chester, Penn., he will learn, that before the revolutionary war, sewing silk was made from worms fed upon the leaves of the native mulberry, and he will see many gowns made by the ancestors of the present possessors of them, of silk produced from the same food.

It is not intended by these remarks to inculcate the idea, that the native mulberry is as eligible for feeding silkworms as the white, nor that its existence in our fields and forests, however abundant, should be permitted to supersede the necessity of cultivating the latter. We know, that, although good silk is annually made from it, it can never be as profitably used as the white. Not, however, on account of the silk being "saturated with a thick gum, which cannot be boiled away without injuring the material," as Mr. Du Ponceau sagely remarks; but because it is not as nutritious food for the worms as the white mulberry and is too much scattered through the forest. As food for silkworms, the different kinds of mulberry are precisely like the different kinds of food for other animals—some are more nutritious than others. Some kinds of grass afford more nutriment to cows, and cause them to afford more and better butter and milk, than others;—so with the different kinds of food for silkworms. White clover pastures are best for dairy purposes—and the white mulberry is the best for silkworms of the kinds yet adopted for the purpose in this country. But the many stalked, *morus multicaulis*, just introduced, is expected to be better than either. The editor of the Farmer has taken measures to raise a nursery of this excellent variety, having obtained a supply of young trees from Mr. Prince of the Linnæan Botanic Garden. The leaves are very large, contain much less woody fibre than those of any other kind, and afford much more nutriment; besides other advantages. Some of the leaves of the morus multicaulis in the Editor's nursery measured 10 by 12 inches, clear of the stem. A course of experiments will be instituted next summer to test the relative value of this species and the white, by feeding an equal number of worms on each, weighing the leaves exactly, and ascertaining the quantity and quality of the silk produced by each parcel.

Mr. D. takes the opportunity of renewing his objections to the expediency of making sewing silk, and other articles, from the best part of the cocoons instead of inferior silk, and of sending the raw silk to sell in Europe. Having heretofore shown the disadvantages of the exportation of raw silk, we shall annex some remarks on that point; and here only observe, that the reference to the North Carolina gold by no means applies, because the gold in any shape will readily command sale, whereas the raw silk does not in this country, and the expenses attending its exportation would not justify that means of disposing of it. Mr. D. is certainly in error when he says that sewing silk is not included in the amount annually paid by the United States to France for her silk manufactures; for this article constitutes a principal item in that amount. In the treasury reports there is no specification of the particular species of silk manufacture imported, and Mr. D. can have no other authority for his assertion. The value of all the silk articles imported from various parts of the world into the United States in the year ending September 1829, was - - - - $7,048,628

Value of silk exported, was -	920,958
Remaining for home consumption	$6,127,670

And not "eight or ten millions" from France alone, exclusive of sewing silk, as asserted by Mr. Du Ponceau.

The force of the reference to the people of Mexico, as respects their silk manufactures, cannot be seen. As regards ourselves, nothing appears to be more plain, more consistent with the sound principles of common sense, than that any article made by domestic labor, which labor does not interfere with the other essential business of a family, and for which articles more or less money would be expended by the family, is a clear saving, and of course a clear gain to it; and that when more is made than is required for family use, and this surplus can readily be bartered at a country store for goods, the business is worth attending to. Our prudent, practically wise citizens will never be persuaded to send their raw silk to be sold in Europe, wait a year for returns, and suffer all the risks attending a foreign shipment, when they can so profitably make it up and use or dispose of it at home.

Mr. D. is greatly behind hand in his knowledge of the state of the silk manufacture in the United States. He has just learnt that "already some have begun to work China silk into vestings," &c. Mr. Read, of New York, has been making excellent vestings for several years; and Mr. Brown, of Boston, has manufactured fringe and other articles for upholsterers as long.

The editor of the Register appears to labor under a difficulty about the particular species of mulberry tree, on the leaves of which the silk worms of Mrs. Tweed were fed. If he will consult the silk manual published by Congress, he will learn that there is but one native species of mulberry—the *Morus Rubra*, certainly known. Upon some trees the fruit is so dark as to justify the name of black, but the greater part have deep red fruit. The fruit of the white mulberry, it appears from the same work, also differs in color.

On the subject of exporting raw silk, we make the following extract from an essay published in the Baltimore Gazette last spring.

The recommendation to be satisfied with reeling off our cocoons and selling the raw silk to the French, is not applicable to the present state of the silk culture in the U. S.; owing to the small quantity produced out of Connecticut, and even there it will not be acceded to for reasons already given, and to these may be added the comparative small price of raw silk. It is true that much less time is required to produce raw silk than sewing silk, but it must be observed that the time of the women could not be so profitably employed as in this business, whether it be attended to as a main and exclusive object, or in the intervals of their necessary domestic duties. It has already been seen that no difficulty is experienced in disposing of their sewing silk at prices with which they are contented, and it may now be added, that generally this sale is effected in the course of a few weeks after it is made. Now let us see the course of things if they only made raw silk with the view of exportation:

1st. There would be a deduction of profit for the amount of freight to the seaport—a small sum, but something, say 1-8 per cent.

2d. Commissions to the merchant receiving and shipping the raw silk, one per cent.

3d. Freight to France, 1-8 per cent.

4th. Commissions on sales there, five per cent.

5th. Insurance, 1½ per cent.

6th. Storage, 1-8 per cent.

7th. Brokerage, ½ per cent.

8 3 8 per cent., or eight and three eighth cents to be deducted from every dollar of the amount sold. This would make the proceeds of the *very best quality* of raw silk sold in France, where the highest price is 26 francs ($5 00,) a pound, only $4 58 1-8. But the above expenses do not include all that will be incurred. We must add that arising from loss in the weight of silk, say 1-8 per cent., and a charge of three per cent. for returns if made in specie. If the proceeds are drawn for, the difference in the exchange, which is generally against the United States, will be another source of loss. The par is five francs thirty-one centimes for the dollar, and bills have recently been sold as low as 5.45, equal to about 2¼ per cent. To these sources of drawback on profits, must be also added interest on the capital, say for nine months, (the time allowed to close sales,) 4½ per cent., and the risk of the failure of the merchant in the American seaport or in France—all amounting to 18¼ per cent. actual, besides possible deductions from the proceeds. Now let any one reflect upon these particulars of diminished profit, and these chances of total loss, and on the original small price of the article compared with that of sewing silk, and then ask which of the two modes of sale, and which form of the article is to be preferred. Can there be a moment's hesitation on the subject? That I have not overrated the costs and charges of exportation and foreign sale, may be ascertained by applying to any experienced shipping merchant.

LARGE TURNIPS.—We have at our office a couple of large turnips, raised by Mr. Pascault, of the Eastern Shore of Maryland. One weighed, with the tops on, eighteen pounds; is 10¼ inches in diameter, and 34 inches in circumference. Five turnips taken from the same field weighed 56¼ pounds. Mr. Pascault says there were many turnips taken from the same field which were much larger. The forepart of the season was very unfavorable for turnips, but the latter part has been uncommonly propitious; and hence the crop has been excellent—we never saw finer new ground turnips than our markets exhibit daily.

Annapolis, Nov. 22, 1830.

Sir,—I this year gathered from a bed, 24 by 30 feet, nine hundred cimlins and upwards, and the vines are still bearing. I also pulled a double pea and treble strawberry, with three distinct stems, and have strawberries in blossom.

J. F. B.

Prices Current in Boston, Oct. 19.

Apples, new, bbl. 1.25 a 1.50. *Beans*, white, bushel, .90 a 1.00. *Beef*, mess, bbl. 8.00 a 9 .00; cargo No. 1, 6 00 a 7.00; No. 2, 6.50 a 6.70. *Butter*, inspected, No. 1, new, lb. .14 a .15. *Cheese*, new milk, 6. a .8; skimmed milk, 3. a 5. *Flour*, Baltimore Howard-st. 5.75 a 5.87; Genesee, 5 62 a 5.75; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .64 a 6g; Rye, .65 a .70; Barley .60 a .62; Oats .36 a 38. *Hogs'-Lard*, 1st sort, new, lb. 12 00 a 13. *Pork*, clear, bbl. 16 a 18; Navy, mess, 12.25 a 12.50; Cargo, No. 1. 13. a 14. *Seeds*, Herd's Grass, bushel, 1 75 a 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb..33 a. 38; White Honeysuckle Clover, 25 a .38; Red do. Northern, 9 a 10; French Sugar Beet ——; Mangel Wurzel —— *Wool*, Merino, full blood, washed, .58 a 62; do. do unwashed, .30 a .35. Merino mixed with Saxony, .60 .67; Merino three fourths washed, .52 *a* .57, do. half blood, .45 *a* .50; do. quarter, 37 *a* 40. Native, washed .36 a .38; Pulled, Lambs', 1st sort, 52. a ; 55 do. 2d sort, .42 a .—; Pulled Spinning, 1st sort, 45.

Prices Current in New York, Nov 20.

Beeswax, yellow .20 a 22½. *Cotton*, New Orleans .11½ a .13½; Upland, .9½ a .12; Alabama, .11 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask — clean 10.25 a 10.37½. *Flour*, N. York, bbl. 5.6¼ a 5.12½; Canal 5.19 a 5.50; Balt. Howard st. 5.50 a ——; Rich'd. city mills, 5.75, country, 5.25 a ——; Alexand'a, 5.19 a 5.31; Fredericksburg 5.12½; Petersburg, 5.25 a ——; Rye Flour, 3.62½ a 3.75; Indian Meal, per bbl. 3.31 a 3 50; per hhd. 14.50 a 15.00. *Grain*, Wheat, North, —— a ——; Vir. 1.00 a 1.05; Rye, North, 68 a 68; Corn, Yel. Nor. .61 a 63; Barley, 73 a 74; Oats, South and North, .28 a .36; Peas, white, dry, 7 bu. –. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.75 a 8.00; prime 5.00 a 5.25; cargo 4.00 a —— Butter, N. York, 12½ a 16; shipping, 8 a 10; Lard, 9. a .10; Pork, mess bbl. 14.00 a 14.50; prime 10.00 a 10.50; cargo ——.

GENERAL AGRICULTURAL AGENCY, AND SEED STORE.

The Subscriber, deeply impressed with the belief that a general agency, for the purchase and sale of every description of Agricultural implements, improved breeds of stock, fruit trees, seeds, plants, &c. would not only be a great convenience to the public, but profitable to himself, has determined to open one at the office of the American Farmer. His intimate acquaintance with all the breeders of stock, implement, and horticultural establishments, as well as the central situation of Baltimore, gives him important advantages for an agency of this kind.

As general agent, he will receive orders for, and purchase all kinds of agricultural implements, machinery, fruit trees, vines and plants, and all kinds of seed, improved breeds of cattle, sheep, and other stock; and indeed any thing that may be wanted by agriculturists; and will attend personally to their inspection, that the genuine article may be certainly obtained. When dependence is placed upon his judgment, no machine will be purchased but such as he shall have seen to operate as described. Fruit trees, shrubbery, and green house plants, will be obtained at the establishment named by the person ordering; and if no establishment be named, the subscriber will obtain them from such as he shall have most confidence in—in the latter case he will be responsible for the genuineness of the articles, in the former, the risk will remain with the purchaser.

Commissions on sales and purchases, on sums of $10, or less, 10 per cent. between $10 and $20, 9 per cent. $20 and $30, 8 per cent. $30 and $40, 7 per cent. $40 and $50, 6 per cent, $50, and upwards 5 per cent.

☞ Gentlemen having improved stock for sale, are invited to furnish him with lists, containing descriptions, pedigrees, and prices.

IN THE SEED STORE, at the office of the Farmer, every description of garden seeds will be kept for sale, and the subscriber will particularly attend to the collection of new and rare varieties. Besides a general assortment of garden seeds, he has now for sale the following rare seeds, mostly raised by himself:—

SWISS CHARD, (a new and excellent vegetable;) CHICK PEA, (*cicer arietinum*, a delicious new Pea, used green or dry, and not subject to the bug,) BISHOP'S DWARF PROLIFIC PEA, (well described by its title—requires no sticks,) RHUBARB, (for tarts, and equal to gooseberries, with the advantage of coming into use very early in the spring,) PURPLE EGG PLANTS, SEAKALE, (an excellent early vegetable;) Genuine CUBA TOBACCO SEED, fresh from Havanna; COW CABBAGE, sometimes called Perennial Cabbage and Tree Cabbage. These seeds are put up in papers generally at 25 cents each, and can be sent by mail. Directions for their cultivation will be given when required.

BOOKS, on *Agricultural and Horticultural subjects* will also be kept for sale; the following are now on hand: Prince's Treatise on the Vine, price $1.50, do. Treatise on Horticulture 75; Fessenden's New American Gardener, price $1.25; Mason's Farriery, new edition, $1.50; Hinde's Farriery, $1.

The subscriber has also for sale 4500 GENUINE WHITE MULBERRY TREES, of his own raising, which he will sell at from two to eight dollars a hundred, according to age and size, warranting their genuineness and growth.

All letters on the business of this establishment must come free of postage. GIDEON B SMITH.

MESSRS. D. & C. LANDRETH'S GARDEN SEEDS.

The Subscriber would inform the public that he is now furnished with a fresh supply of the Messrs. *Landreth's* celebrated GARDEN SEEDS, of this present year's growth, which he offers wholesale and retail, at the Messrs Landreth's prices in Philadelphia. His whole stock of SEEDS now on hand, are of the growth of 1830, and can be warranted with the greatest confidence.

J. S. EASTMAN,
West Pratt, between Hanover and Charles streets.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—The continued wet weather has caused a suspension of business in the produce market, and there is no change to notice. The wheat that arrives remains under hatches. The wagon price of Howard street flour is $5, but very little coming in. There is no change in beef on the hoof.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17 00. The inspections of the week are 441 hhds. Maryland; and 9 hhds. Ohio; total 450 hhds.

FLOUR—best white wheat family, $5.50 *a* 6.00—super. Howard-street 5.06 *a* 5.12½; city mills, 4.75 *a* 4.87½—Susquehanna, ——; CORN MEAL, bbl. 2.25—GRAIN; red wheat, 95 *a* 1.00; ——white do. 1 03 *a* 1.07—common red ——CORN, white, .55 *a* .56—-yellow .56 *a* .57——RYE, .55 *a* .——OATS, .29 *a* 30 BEANS, 90 *a* 1.00-PEAS, 50 *a* 60-CLOVER SEED 5.50 *a* 6.00 TIMOTHY, 2.25 *a* 2.75—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, 62½ FLAXSEED 1.20 *a* 1.25, COTTON Va 9½ *a* 10½-Lou. 11½ *a* 13¼—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 10 *a* 13-WHISKEY, hhds 1st p. .20 *a* 27½; in bbls 30 *a* 31——WOOL, common, unwashed, lb. 15 *a* .16——washed, .16 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.20, *a* ——No. 2, —— *a* 5.75--No. 3. 3.50 *a* —— BACON, hams, Balt. cured 10c.-Feathers, 34 *a* 35--Plaster Paris, cargo price per ton, 4.25 *a* 4.31¼ ground, 1.25 *a* 1.50 bbl -Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 3.50 *a* 4.25—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—Hickory, $4.50.

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EDITED BY GIDEON B. SMITH.

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AGRICULTURE.

(From the Complete Grazier.)

GRASSES.

On the Qualities and Comparative value of some Grasses and Roots, as Food for Cattle.

Many experiments have been made to discover the relative value of different kinds of food for cattle, by feeding the various species of stock with a given quantity of each, and weighing the animals in order to ascertain the increase of flesh gained by each during a certain period. But the result of all such experiments depends so much on the breed, age and constitution of the animals, as well as upon hidden causes in the digestive process, that they have been generally found inconclusive; and thus have arisen the numberless contradictory statements that have been published.

With a view to rectify those errors, and to establish a system, on the correctness of which reliance might be placed, a series of experiments was undertaken, at Woburn, by the Duke of Bedford, and conducted under the able superintendence of his very intelligent gardener, Mr. George Sinclair, who has communicated the results to the public in a volume entitled *Hortus Gramineous Wobernensis,* which cannot be too strongly recommended to the attention of every farmer.

The various grasses were cultivated separately, in equal proportions, and thus the quantity of fodder produced by each upon an acre was ascertained; an equal portion of this produce was then subjected to a scientific process, by means of which the qualities of each were accurately established; and by submitting the dung of cattle fed upon these grasses to chemical tests, a correct knowledge was obtained of the different particles retained in the stomach for the purposes of nutriment: whereby, collectively, the quantity, the quality, and the nutritive power of each being known, their relative value is easily determined. The importance of such experiments requires no illustration; and by permission of the author, we shall give a brief summary of a few among them, referring to the work itself for more interesting details.

It was found that vegetable matter is chiefly composed of gluten, mucilage, saccharine matter, or sugar and bitter extract. It is upon the several proportions of these, exclusive of the woody fibre which forms their basis, that their nutritive value depends; but as a due proportion of each is necessary to digestion, and consequently to health, plants may be separately unwholesome, which collectively would be found highly nutritious. Thus, in an experiment recorded by Mr. Sinclair:—"two fields were sown down for pasture; one with white clover and trefoil only, and the other with a variety of the natural grasses, among which there was a portion of white clover. The two fields were depastured with sheep. In the enclosure of the white clover a considerable quantity of cock's-foot grass grew on the edge of the fence; it was of a very harsh quality from its unfavourable situation, and consisted almost entirely of culms. In a few days the sheep went to this grass, and ate it down entirely, though there was a profusion of white clover. In the course of time many of these sheep became infected with the disease termed *red water,* of which some died; but in the adjoining field, which contained the natural grasses, cock's-foot, rough-stalked meadow grass, rye grass, fox-tail grass, and white clover,—the sheep were not affected with that, nor any other disease; and they left untouched the stems of the cock's-foot, which were here of a more tender and succulent nature than those on the edges of the other fields, which were so greedily devoured by the clover sheep."

Now it may be observed, that if the hard stocks of the cock's-foot in the clover field had been in sufficient quantity, they would, most probably, have prevented the disease from attacking the sheep; but this could not have been by the virtue of the dry fibre only of the culms, because, in the adjoining field, where every thing was contrary to disease, the sheep rejected the culms altogether. The dry or mechanical action of the culms was here wanting, yet the animals continued healthy, and fattened, because the bitter extract was in greater proportion to the leaves or herbage than in the culms which they rejected; and also proved beneficial when combined with succulent food, which could not partake of the action of the dry hay before mentioned.

Hence the importance will be perceived of minutely ascertaining the various properties of cattle food, and their effects upon the different animals to be fed; and it has been justly observed by Mr. Sinclair, "that without the means of distinguishing with certainty the different species of grasses, the cultivator must have recourse to other men's experience and assistance, before he can make any certain or just experiments of his own, or any consequent improvement. The farmer who cannot distinguish the seeds of the most valuable species of grasses from those that are worthless, or pernicious, must be subject to serious losses and disappointments, occasioned by every accident in the course of his practice, which may place in his hands the seeds of inferior or pernicious plants, instead of those grasses adapted to his soil, and possessing the most productive and nourishing properties; and should he be unable to distinguish the plants produced from those grass seeds which he may sow under such circumstances, he must wait until the non-advancement in condition of his stock informs him of his loss." For much of this valuable information, we must again refer to Mr. S. himself, and shall only add some of the results of the few experiments to which we have already alluded.

CABBAGES.

	Nutritive Matter.	Fibre.	
7000 grains or 1 lb. of the cattle, or drum-headed cabbage, consists of - -	430 grs.	280	The balance water
Early York - - -	430	312	
Purple borecole - -	448	1120	
Woburn perennial kail -	438	932	
Green-culled kail - -	440	880	
Turnip-rooted cabbage -	252	860	

TURNIPS.

64 drachms of the Swedish turnip afforded, of nutritive matter	110 grains.
Stone, or garden do. - -	85 do.
Norfolk white - - -	83 do.
Common, or white loaf - -	80 do.
Tankard, or long rooted - -	76 do.

Kohl rabi produced about the same quantity of nutritive matter as Swedish turnips; and

Swedish turnips were superior to cabbage in the quantity of nutritive matter in the proportion of 110 to 107½.

Common turnips were inferior to cabbages in the quantity of nutritive matter in the proportion of 80 to 107½.

But the quantity of nutritive matter contained in turnips varies according to the size and texture of their substance. A root of the white-loaf variety, measuring seven inches in diameter, afforded only 72½ grains; while the same quantity of a root measuring only four inches afforded 80. The middle-sized roots of the common turnip are therefore the most nutritious; but, on the contrary, the largest of the Swedish turnips produced 110 grains, while the small one produced 99.

POTATOES.

64 drachms of the champion contained, of nutritive matter	260 grains.
Hundred-eyed - - -	218 do.
Rough-red - - -	204 do.
Purple-red - - -	200 do.
Oxnoble - - -	195 do.
7000 grains of the black kidney potato contained, of soluble mucilage - - -	970 do.
Pure starch -	700 do.
Fibre -	620 do.
Water - -	4710 do.

which shows that the quantity of water contained in raw potatoes is much greater than is usually supposed, and proves the propriety of steaming them when given to cattle.

Carrots.—Of four varieties, the long-red was found the most productive: 64 drachms afforded 187 grains of nutritive matter.

Mangel wurzel was found superior to common turnips and carrots, but inferior to cabbage and potatoes.

64 drachms of Burnet produced, of nutritive matter - - - -	100 grs.
Lucerne - -	90 do.
Broad clover - -	80 do.
Chicory - -	60 do.

	Nut. Matter.	Fibre.	Water.
3000 grains of Common tares produced	193 grs.	577 grs.	2250 grs.
White clover	100	470	2430

The acreable produce of lucerne was found to exceed that of broad clover, in the proportion of about seven to five of green herbage; and when made into hay, of nine to four.

THRESHING MACHINE.

White House, Queen Anns, Md. Nov. 22, 1830.

Mr. Smith:

Observing in the 36th No. 12th vol. of the American Farmer, a request for information respecting threshing machines, from those who have them in use—and willing to contribute my mite towards disseminating such knowledge as my limited means and little practical experience has enabled me to attain on that interesting subject. I now forward you this, with liberty to insert it in the Farmer, should you deem it worthy a place in your useful columns.

I have had one of Douglass' threshing machines in operation for the three last seasons and have given considerable attention to its principles and performance. When first introduced amongst us, this machine was very defective in many respects—the small mechanical knowledge however, aided by much experience, and close attention of a few of our practical farmers, into whose hands it has fallen, has by correspondence with them on the subject, enabled the patentees to get the machine up to what we now consider a great degree of perfection. It is, however, costly, as the patentees say they cannot afford to deliver the improved machine and horse power in Baltimore under two hundred dollars. Her performance I think may be fairly estimated at from twenty to twenty-five bushels per hour, ordinary work, on good wheat. She is a four-horse power—but if the friction roller boxes for the journals of her cylinder band wheel and horizontal shaft are adopted, as has been lately suggested to the manufacturers by a customer, the power to drive her, I presume, would then be reduced from four to three, and perhaps to even two horses. As to the number of attendants necessary to her successful and constant operation, that I conceive must depend somewhat upon circumstances and localities. If the wheat be drawn from the field, and dropped near the feeding table, then one or two boys or girls to put it upon the table, one man or woman to cut the bands on the table, one man to hand the sheafs to the feeder, one man to feed the machine, and two men to rake and separate the straw from the wheat, as it is thrown out in front of the machine, would be all that would be absolutely required, exclusive of the driver or drivers for the horses. The machine itself consists of a frame, somewhat smaller than a common sized wheat fan, in which is placed a trough or concave, this concave contains four rows of wrought iron teeth, about three-sixteenths of an inch thick, three quarters of an inch broad, tapering towards their tops, and about sixteen or seventeen in each row—and shewing say one and three quarter inches in height. In the trough or concave is hung a solid cylinder, twelve inches in diameter, and containing a number of teeth similar to those in the concave—the cylinder is suspended in its proper position by a thorough wrought iron axis, revolving in strong cast iron or composition boxes—on each end of the axis is placed a wooden whirl, about seven inches diameter; on one of these whirls the strap from the band wheel, which is about four feet in diameter, plays, and on the other, the strap of the twelve inch, or relief whirl, hung with its axis vertically over that of the cylinder. Any horse power, calculated to give the cylinder sufficient velocity, say from two hundred to two hundred and fifty revolutions to one of the martin wheel, may of course be used to work the machine—but the one now furnished with the machine, consists of a perpendicular shaft about sixteen inches square, with cast iron wing gudgeons above and below, the lower one fixed in a cast iron box; on the upper part of this shaft is placed a wheel of strong timber, to the upper surface of which is attached, by screw bolts, sections of castings forming a circle of five and a half feet diameter—in the cogs of these castings a pinion works, of bevel gearing, fixed on the end of a strong wooden horizontal shaft; on the other end of which shaft is a vertical spur wheel, about five feet diameter, of sections of castings like the first, but smaller, the cogs of which play in a cast iron wallower around the hub of the band wheel, from which passes the strap to the seven-inch whirl of the cylinder; the horses are attached to levers fixed around the large perpendicular shaft, and moving on a circle, of say twenty feet diameter, thus giving motion to the machine. She threshes the wheat out very completely, and leaves the straw not much broken.

Messrs. Booth & Mills, Exchange street, New York, are the patentees and manufacturers of Douglass' machine for our section of the country. I have thus, though from memory, for I am from home, and in a hurried, and I fear unsatisfactory manner, endeavoured to comply with your request above alluded to, and hoping that others more conversant with such matters will follow my example in relation to this interesting subject, I remain yours truly,

Edwd. Tilghman.

CROWS.

Few birds are more numerous and annoying to the farmers of the Atlantic States than the common crow, (*C. corone*,) which, throughout a considerable part of the year, collects in astonishingly large flocks, and makes destructive descents upon newly planted maize and other grain. In this species it seems as if all the evil propensities of the race were united and augmented. Exceedingly cunning in detecting every contrivance intended for their destruction, they are rarely destroyed to any great extent, except in seasons of excessive and long-protracted cold weather. Then (as during the winter of 1828-9) vast numbers perish from starvation, since the earth, brooks, rivers and bays, being completely locked up, all their sources of supply are cut off. At such times, their hunger is so distressing as to force them to the most extraordinary exertions, and they devour substances, which nothing but excessive hunger could induce any animal to swallow. During the hard winter alluded to, immense flocks were observed passing from the direction of the famous roosting place in the vicinity of Bristol, Pa. (particularly noted by Wilson,) towards the shores of the sea and bay, and returning regularly in the afternoon. Thousands upon thousands, for several hours, moved heavily along in a broad, irregular line; and, from the numbers found dead in the field, it is most probable that, during the severest weather, but little benefit resulted from their long diurnal pilgrimage. The common crow is voracious at all times, and nearly, if not quite, as omnivorous as the brown rat. Grain of all sorts, but especially Indian corn, insects, carrion, eggs, fish, young birds, the young of various domestic fowls, and even young pigs, are sought for eagerly, and devoured with avidity. This species, from the peculiar excellence of its sight, smell and hearing, by which it is very early warned of approaching danger, is very audacious, frequently coming close to the farm-houses in search of prey, and persevering in efforts to rob the hens of their chickens, until successful. The writer has witnessed several times, in the state of Maryland, where crows are far too abundant, the pertinacity of one of these robbers in attempting to seize a young chicken, notwithstanding the fierce defence made by the hen. His approaches appeared to have in view the withdrawal of the hen to a little distance from her brood; then, taking advantage of his wings, he would fly suddenly over her, and seize the chick. The same attempts were frequently made upon the goose, with a view to seize her goslings, but the vigilant gander, though sorely fatigued by his struggles, never failed to defeat a single crow: it was otherwise, however, when two or more united for the purpose of feasting on the young. It is not an uncommon thing for farmers to be under the necessity of replanting corn several times in the spring, and, when it is just rising above the ground, to be obliged to keep several persons continually on guard in the fields. When the corn has shot up an inch or two above the surface, a host of these black coated plunderers invade the fields, and having posted sentinels in several commanding situations, march regularly along the corn-rows, drawing up the grain, pulling skilfully by the shoot, and then swallowing the germinating corn. Among the most successful experiments made to prevent the crows from doing this mischief is that of coating the seed corn with a mixture of tar, oil, and a small quantity of slacked lime, in powder. The ingredients being mixed in a tub, the seed corn is stirred in it until each grain receives a thorough coating of the mixture. This preparation, as it necessarily keeps the grain from being readily affected by moisture, is found to retard the germinating about three days. In the instance we witnessed of the trial of this preventive, it was fully successful; for, although the field was daily visited by hosts of crows, they were content with pulling up enough corn, in various places, to be satisfied that it was, throughout, equally unpalatable. During their breeding season, which is in the spring months, the flocks spread over a great extent of country, and build their nests of small sticks, lined with grass, in lofty trees, choosing the most remote and difficult of approach. The young, generally, are two in number, and until fully fledged are most solicitously protected by their parents. When the young crows first begin to receive lessons in flying, nothing is more remarkable and affecting than the efforts made to preserve them, by the parents, when a gunner approaches the vicinity. Every artifice is employed to call attention away from the young, which seem to comprehend the directions or calls of their parents, and remain perfectly silent and motionless. In the meanwhile, the father and mother fly towards the gunner, taking care not to remain an instant in one place, and, by the most vociferous outcries, deprecate his cruelty. These efforts being continued, their voluntary exposure, and the eagerness with which they fly about a particular spot, are almost always successful in withdrawing the sportsman from the place where the young actually are. As soon as they have succeeded in leading him to a sufficient distance, they cease their accents of distress, fly a little farther from their young, and from a lofty perch, which enables them to watch all around, utter an occasional cry, which one may readily imagine to be intended for the direction and encouragement of their offspring. The most successful mode of destroying crows, is that of invading them in their extensive dormitories during the night. When they have selected a pine thicket, or other dense piece of wood, for a roosting place, they repair thither with great regularity. Every evening, vast flocks come sailing to the retreat, and the trees are literally covered and bowed down. When the state of Maryland received crow scalps in payment of taxes, at three cents each, parties were frequently made to attack the crow roosts. Gunners were stationed at various parts, surrounding the roosts, and all those of one division fired at once; the slaughter was necessarily dreadful, and those remaining unhurt, bewildered by the darkness, the flashing and report of the guns, and the distressing cries of their companions, flew but to a litle distance, and settled near another party of gunners. As soon as they were fairly at rest, the same tragedy was reacted and repeated, until the approach of day or the fatigue of their destroyers caused a cessation. The wounded were then despatched by knocking them on the head or wringing their necks, and the bill, with so much of the scull as passed for a scalp, was cut off and strung for the payment of the tax-gatherer. The poor people, who had no taxes to pay, disposed of their crow scalps to the *store keepers*, who purchased them at rather a lower rate. This premium has long been discontinued, and the number of these marauders is, in many parts of that state, quite large enough to require its re-establishment.

[*Encyclopædia Americana*.

(From the York, Pa. Republican.)

NEW VARIETY OF WHEAT.

York, *Oct.* 19*th*, 1830.

Dear Sir,—I beg leave to send you herewith a few samples of wheat, originally from Syria, afterwards raised in England, and new, as far as I am informed, in our country. Its quality is said to be very fine, and its productiveness very great. I place the samples, regretting that they are not larger, in your hands, to be given away to such of our farmers of York county as you think may feel a disposition to make trial of them upon their farms. I have ventured to give it the name of the "Bexley Wheat," having received the first samples of it from Lord Bexley in England, who obtained it from Syria, as I understood. When at Washington, I gave a small quantity to my friend Col. Maynadier, of Annapolis, Maryland, under whose cultivation in that neighborhood, it has, on a single trial, succeeded wonderfully.

In the hope that it may prove useful among us,

I remain very respectfully,

Yours, &c.

Richard Rush.

T. C. Hambly, Esq.

HORTICULTURE.

(From Prince's Pomological Magazine.)

PEACHES.

(Continued from page 292.)

Noblesse. *Pr. cat. Pom. Mag.*

The following very complete description of this fruit I transcribe from the Pomological Magazine.

"Flowers large, pale blush; leaves serrated, glandless; fruit large, in general of a roundish shape, somewhat hollow, the shape of the fruit varies on the same tree, being often a little elongated, with a large point on the summit; skin slightly downy, marbled dull red next the sun, somewhat streaked with darker, breaking off in faint blotches towards the shaded side, which is pale yellowish green; flesh white to the stone, from which it parts freely, melting and rich; stone large, pale, obovate, pointed; ripens in the end of August or beginning of September. It is one of the principal sorts for forcing. The tree is hardy and a good bearer."

Switzer, in his "Practical Fruit Gardener," published in London in 1824, speaks thus of the Noblesse of his time:

"The Noblesse peach, for largeness, good taste, and the hardiness and the durableness of the tree, is not equalled, much less excelled, by any fruit we have in England; perfectly agreeing with our soil and climate, as much as if it had been a native of our own. It succeeds the Montauban, and for size improves upon *him*. The flowers are of the whitish pale blush, and the leaves somewhat serrated; in short, it is the best peach (take it altogether) of any we have had from France; and a man that is content with, or has but room for a few, cannot do better than to plant the Montauban and Noblesse peach, preferable to any other."

"Hence it appears that this celebrated variety is of French origin, and yet it is singular that it has not hitherto been identified with any thing in the modern French gardens. This has induced me to put together the following remarks:

"The Noblesse peach is in the section of 'serrated glandless leaves, large flowers, melters,' of Mr. Lindley's classification. The French include in this section, according to the 'Bon Jardinier,' the Avant-Pêche Blanche (White Nutmeg, Miller,) Madeleine Blanche, de Malta, Madeleine de Courson, Cardinale, d'Ispahan, and Nain.

"The three last are peculiar sorts, not generally cultivated, nor does the merit of their fruit deserve that they should be; and the first is only cultivated for its precocity. The Madeleine de Courson is bright red next the sun, and mottled with small dots towards the shaded side, not marbled with blotches like the Noblesse, and its flesh is red at the stone. The Pêche de Malta, as the French likewise admit, has an affinity to the Madeleine Blanche or the Montagne Blanche, and to these the Noblesse is nearly allied, by its colour outwardly, the nature and colour of its flesh, and in being also white to the stone; but it is nevertheless different, being larger.

"The Double Montagne has proved synonymous to the Noblesse. Knoop describes the Madeleine Blanche and admits it to be the same as that called in the low countries the Montagne Blanche. He also describes the Double Montagne, but speaks of it with more uncertainty. He states it to be a clingstone; but this he does of many others well known to be melters.

"In Mayer's Pomona Franconica, vol. ii. p. 234, the Avant-Pêche Blanche of Duhamel, and the White Nutmeg of Miller, is stated to be called in Holland 'La Montagne,' but this is contrary to the statement of Knoop before referred to, and as he describes the Madeleine Blanche as 'une grande et belle Pêche,' he would not mistake the White Nutmeg for it, when he says, '*Je* pense que cette sorte est la même qu'on appelle dans ce pays-ci la Montagne Blanche, à cause que la description de cette dernière sorte est entièrement conforme à celle-ci.'

"It appears, therefore, from the above authorities, that the Montagne and Madeleine Blanche are the same thing. The 'Montagne Double' is, without doubt, a larger variety of the 'Montagne Simple;' as may easily be inferred from the sense in which *double* is used in the Netherlands.

"From circumstances I think we are justified in concluding, that if the Noblesse peach is in cultivation in France, it must be included among their Madeleine Blanche peaches. To the Noblesse are closely allied Ford's Seedling, Sulhamstead, Cambray, Montauban, Vanguard."

It is further remarked in the Pomological Magazine, that the Noblesse of the Americans appears, from Coxe's account of it, to be very different from the foregoing, but I believe the one cultivated in my collection is the same as here described, and Mr. Coxe may have been led into a mistake from his tree being an erroneous one, as there were formerly several kinds cultivated near New York to which the different owners gave this title.

Early Chevreuse.

The flower of this tree is small; the fruit of fine size, rather oblong, divided on one of its sides by a very distinct groove, one border of which is more elevated than the other; it is terminated at the summit by a small pointed nipple, and the surface is often scattered over with little protuberances, especially towards its base; the skin is tinged with bright red on the sunny side; the flesh is melting, replete with juice, which is sweet and of very agreeable flavour, and it is white except around the stone, where it becomes red; the colour of the stone is a brownish red, and it is of a moderate size, somewhat elongated. This peach ripens towards the middle or end of August, and the tree generally yields abundant crops.

Late Chevreuse. *Pr. cat.*

The leaves of this tree are furnished at their base with reniform glands; the flowers are rose-coloured, and about ten lines in breadth; the fruit is not exactly round, but is sometimes a little compressed, and frequently presents small elevations forming a kind of protuberances; it is twenty-six lines in diameter, and twenty-four in height; the longitudinal groove, which divides it into two sections, is always very distinct, and it frequently happens that one side of it is more swollen than the other; the summit is terminated by a very distinct nipple; the skin is pale where shaded, and a fine dark red where exposed to the sun; the flesh is somewhat red around the stone, but the residue is white—it is melting, and pretty abundant in juice, which is bland, sweet, and of pleasant taste; the stone is very elongated, sixteen lines in length, and ten to eleven broad—the point which terminates it is often a line in length. This peach attains to maturity at the end of September.

Belle Chevreuse. *Pr. cat. Duh. Roz.*

This peach is much less regularly rounded than most of the other kinds; it is usually of greater height than breadth, often measuring thirty-one lines in the former, and twenty-eight lines in the latter direction; the longitudinal groove which separates it into two sections, forms this division in such a manner that one side of the groove is commonly flattened, whilst the other is swollen and more conspicuous, the summit is terminated by a small nipple scarcely apparent, and in most cases the fruit presents numerous protuberances scattered over its surface; the skin is thick, velvety, whitish where shaded, and somewhat coloured next the sun—it separates pretty readily from the flesh, which is white, except around the stone, where the colour is rather a dark red; it is melting, full of juice, of a vinous, sweet, and excellent taste, the stone separates tolerably well from the flesh, although some particles remain attached to it; it is of a reddish brown colour, large, seventeen lines in length, including a point of more than a line long; and an inch in diameter. This peach ripens at the end of September or the beginning of October.

Royal George. *Pr. cat. Pom. Mag.*

The Pomological Magazine gives the following detailed description of this valuable freestone variety.

"This and the sort usually sold in the nurseries under the name of Red Magdelen, are the same. The Red Magdalen of Miller (Madeleine de Courson of the French) is less common, but is easily distinguished, not so much by its fruit as by its flowers, which are large. Ripens in the end of August or beginning of September, and is a proper sort for a peach-house.

"The Royal George and Red Magdalen are different, say some, because the former is subject to mildew; others say there is a difference, because the latter is the one the most subject to it. The fact is, the same tree will mildew in one season, and not in another. A remedy, or at least a preventive in a great measure for this, is to keep the grounds clear and in good condition, and to see that there be nothing to obstruct a free circulation of air, and a full admission of sun.

"In addition to the synonymes above enumerated, it is extremely probable that Lord Fauconberg's Mignonne, the Early Royal George of the North of England, and the Grandville peach, are the same. It is also almost beyond a doubt, that the Madeleine Rouge à petites fleurs of the French, is the original of the whole of them.

"Flowers small; leaves serrated, glandless; fruit large, globular, moderately deeply marked by the suture along one side, with generally a slight depression on the summit; skin dark purplish red where not exposed, the shaded side is whitish, the intermediate space between the shaded and most exposed part is thickly mottled with small red dots; flesh white, rayed with red next the stone, melting, rich, with a plentiful, highly-sugared juice; stone middle-sized, or rather small, and of a red colour, parting from the flesh."

Ispahan. *Pr. cat. N. Duh.*

This variety is a shrub of ten or twelve feet in height, and forms a round thick bush, filled with numerous branches; the leaves are alternate, lanceolate, from one to two inches long, smooth, of a lively green on the upper side, and a paler green beneath, serrated, supported on short petioles, and devoid of glands; the flowers, although they are only twelve to thirteen lines in diameter, may be ranked among those of large size, on account of the form of the petals, which are round—they are of a delicate rose colour; the fruit is nearly spherical, marked on one side by a deep furrow, and measures from three inches to three inches nine lines in circumference in each direction; the skin, which is covered with down and adheres to the flesh, is at first greenish, but becomes pale yellow at the period of maturity, with a slight tinge of dull red on the sunny side; the flesh is white, somewhat reddish near the stone, melting, and abounding with sweet juice of a vinous and agreeable flavour, and it separates easily from the stone, which is almost round in its circumference, obtuse at its base, and terminated at its summit by an acute point. This peach has some affinity with the Avant-blanche, which, however, ripens two months sooner, and has leaves four times as large.

The present most singular variety, which is much more of a bush than a tree and whose whole appearance is so very striking and peculiar, was found by Bruguiere and Olivier, during their travels in Persia, growing in the gardens of Ispahan, where they frequently met with it flourishing naturally, without any of the advantages of ingrafting or pruning. It produced fruit for the first time at Paris, in 1806, which attained to maturity in September; but in Persia, the travellers referred to found the fruit ripe in November.

I have noticed that during very severe winters the ends of the branches are sometimes partially injured by the cold, in latitudes north of New York.

Bellegarde. *Pr. cat. Duh. Pom. Mag. Mil.*

In regard to this fruit, the Pomological Magazine gives the following descriptive remarks:

"It has been the fate of almost every peach of high merit to be known by many different appellations, particular cultivators having given names of their own to that which was named before. Thus this, one of the most delicious of the varieties that ripen in the beginning of September, has no fewer than five names, under all of which it is often cultivated

"In addition to its good qualities as a fruit, this possesses the merit of being a remarkably healthy tree. not subject to mildew. Both by the French and ourselves it is placed among the foremost class of melting peaches. It comes in at the beginning of September, after the Red Magdalen.

"Leaves crenated, with globose glands; flowers small, bright reddish pink; fruit large, globular, of a very regular figure, with a shallow suture, and a slightly hollowed eye, with a little projecting point in its centre; colour on the exposed side rich deep red, with dark purple or violet streaks—on the shaded side pale green, faintly tinged with yellow; flesh pale yellow, slightly rayed with red at the stone, very melting, juicy, and rich; stone parts freely, rather large, slightly pointed."

Duhamel states that this variety greatly resembles the Admirable, and that it only differs in respect to its skin, being almost wholly tinged with purplish red, which approaches to black on the sunny side; and in its flesh being more firm, as if breaking, and it also ripens at least fifteen days sooner, that is to say, at the end of August, and this is about the period at which it attains to maturity in our country.

This variety is very extensively cultivated at Montreuil, near Paris, where the tree is considered one of the most productive and hardy, supporting the cold much better than many other kinds.

Yellow Alberge. *Pr. cat.*

The flowers of this tree are of a delicate rose colour, and are small, being but ten lines in diameter; the leaves are furnished at their base with rounded glands; the fruit is twenty-four lines in height, and twenty-six or twenty-seven in diameter—sometimes it is one fourth smaller in all its parts; it is covered with a velvety skin, of a deep purple colour on the sunny side, and often over more than half the surface, and is yellow on that part which is shaded, but usually speckled all over with red dots; the skin is easily detached from the flesh. In respect to form, the fruit has not much peculiarity, except that the longitudinal groove is in general strongly marked and likewise slightly apparent on the opposite side; the summit is somewhat sunken, and often presents a very small teat which scarcely projects at all; the flesh is entirely yellow, except around the stone, where it is of a rather dark red—it is also melting, and abounds in sweet and vinous juice very agreeable to the taste; the stone separates pretty easily from the flesh—it is of a brownish red colour, measures nine lines in breadth, by eleven in height, and terminates often in a very short point. This fruit is at maturity the end of August or beginning of September; it is subject to vary in respect to size, by which circumstance the editors of the new edition of Duhamel, suppose that author must have been influenced, when he distinguished the Rossanne peach in the original edition as a different fruit, which they state to be identically the same kind, the fruit being varied in size, and acquiring greater or less dimensions according to the vigour of the trees and the nature of the soil. I consider this to be the Rossanne, and the following kind to be the Petite Rossanne of French writers where the terms are properly applied, but much confusion exists among them in this respect.

(From the Miners and Farmers' Journal.)

THE GREAT MAGNOLIA OF LINCOLN.

Amidst the great variety of indigenous trees that are found in the United States, there is, perhaps, none which more forcibly demands our admiration than the *Magnolia*. This beautiful genus or family of trees is now ascertained to consist of about fifteen species, which are almost equally divided between the United States and China.—The two most interesting species are the *Magnolia grandiflora*, and *Magnolia macrophylla*. In Florida, where the former species flourishes in extreme luxuriance, the forest, during the flowering season, is represented as being sublimely picturesque, and presenting the most enchanting view in nature.—It there not unfrequently exhibits a living trunk or column of 80 or 90 feet elevation. But it is the latter species (Magnolia macrophylla) on which a few desultory observations are intended to be made.

The generic term Magnolia has its origin from Magnolius, a distinguished French botanist, who flourished about the commencement of the 18th century. This genus is arranged under the class *Polyandria*, and order *Polygynia*, of the sexual system of Linnæus. The extent of the species under consideration is extremely local. It is said, from authentic sources, to be found on the banks of the Cumberland river, Tennessee, but of very diminutive size. In Lincoln county, N. C. it is found in considerable abundance about 11 miles from Lincolnton, in an eastern direction; also about 4 miles from the Tuckaseige Ford, on the Catawba river; embracing a tract of country nine or ten miles in length and three or four in breadth. Within these limits are several other localities, but of less importance. The Magnolia seems to delight in a loose, loamy soil. It is frequently found growing very luxuriantly from the cliffs on rugged and abrupt hill-sides, that are protected from a scorching sun by the surrounding growth. Yet it is not exclusively restricted to this its native and *favorite* situation, as it is found to bear transplanting very well, provided some attention is bestowed in keeping it duly irrigated during dry seasons. This precaution is strictly necessary, for one or two years after its removal, to insure its future prosperity.

Another species of Magnolia frequently met with in our forests, is the *Cucumber Tree*, (Magnolia acuminata.) It derives its vulgar name from a resemblance between its cone or seed-vessel and the common garden Cucumber. This species is sometimes mistaken for the one under investigation; but there is a striking contrast both in the size of the leaves and flowers. It is generally conceded by the most assiduous collectors in botany, that the Magnolia (macrophylla) has the largest leaves and flowers of any other tree in America! This may appear, to some of my readers, idle rodomontade; but all who have seen the Magnolia in expanded bloom, can bear testimony to the accuracy of the statement. It is in the vegetable kingdom that we behold the finest delineations of nature amply and richly portrayed: her choicest penciling we are enabled to trace on the variegated flower; and with what pleasurable emotions do we recognize her delicate finger-work as displayed in the large and snow-like blossom of the Magnolia! The leaves frequently measure from ten to twelve inches in breadth, and from eighteen to twenty-eight or thirty inches in length. This, it is true, is vastly inferior to the almost incredible size of the leaves of the Palm trees of Ceylon and other tropical climates, which are represented by an eminent writer as having "leaves large enough to shelter a whole family from the inclemency of the weather, and where it seemed that the author of the Universe had consulted the health, the comforts, and the pleasures of the inhabitants destined to live beneath the scorching rays of the sun."

In Philadelphia, and other northern cities, where the Magnolia is now successfully naturalized, a very high value is attached to it: but in our more favored clime, in *this* respect, it is permitted, save by a very few, to deck the forest in all its "solitary grandeur." This inattention is the more inexcusable, as it occurs in a section of the Union which has been pronounced by competent judges, to be extremely rich both in vegetables and minerals; hence holding forth distinguishing advantages to the amateur of Mineralogy and Botany, two sciences which are making rapid strides towards perfection both in Europe and America. Even in a medical point of view, the Magnolia is worthy of a share of our patronage. By analysis the bark has been ascertained to possess camphorated and aromatic qualities. An infusion or decoction of the bark has been advantageously used in intermittent fever, chronic rheumatism, &c. The cones immersed in spirits make a very agreeable and wholesome bitter for convalescents.

From the limited inquiry which has been extended to the subject, and from the encouraging results obtained, we may expect, ere long, to find the Magnolia enlisted among the most valuable articles of the Materia Medica. But it would be foreign to the purport of the present sketch to enter into a detail of its medical properties. The preceding remarks are merely made with a view of *eliciting*, or rather *soliciting*, farther research on this interesting topic, and suggesting to my fellow-citizens the propriety of *not permitting* the scrubby China tree, the Locust, or the Haw-thorn, to supersede the culture of the Magnolia, which has so happily conciliated to itself the merited appellation of the "Beauty of the Forest," and is justly deemed the most splendid and magnificent tree in America. A Backwoodsman Botanist.

Lincoln Co. Nov. 3, 1830.

(From the New England Farmer.)

Fallen Leaves for Manure, Hot Beds, &c.

In the Massachusetts Agricultural Repository, vol. iv. page 60, will be found "Extracts from the Bath Society papers, with remarks by *John Lowell*, Esq." from which the following are selected.

"A correspondent of the Bath Society in England warmly recommends a species of manure for potatoes, which I think peculiarly applicable to our country, because easily attainable. It is the employment of mould and *fallen leaves* taken from the woods. This, the writer observes, he has found an excellent substitute for other manure. He found the potatoes raised in this way, much more mealy, and of a finer flavor, much finer than when produced by the application of ashes and dung; and he considered it of great importance to poor people, who have not the means of procuring much dung. This, he observes, can always be procured in woody countries, and in those which are not so, it may be obtained in hedges and ditches and in old ponds. If this be a fact, and we have little doubt of it, since it is known that few substances are more favorable to vegetation than rotten leaves, and the soil formed by their decomposition, there is scarcely a farmer in Massachusetts, who may not, by two or three days' labor, collect enough to plant all his potatoes, and thus save his manure for his corn and grass lands."

The leaves of trees are very valuable for the purposes of gardening and for fruit trees. Speechly, an eminent English gardener, gives the following account of his mode of using them:

"After being raked into heaps, they should immediately be carried to some place near the hothouse, where they must lie to couch. I generally fence them round with hurdles or any thing else to keep them from being blown about the garden, in windy weather. In this place we tread them well, and water them, in case they happen to have been brought in dry. We make the heap six or seven feet in thickness, covering it over with old mats, or any thing else, to prevent the upper leaves from being blown away. In a few days the heap will come to a strong heat. For the first year or two that I used these leaves, I did not continue them in the heaps longer than ten days or a fortnight: but in this I discovered a considerable inconvenience, as they settled so much, when got into the hothouse as soon to require a supply. Taught by experience, I now let them remain in the heap for five or six weeks, in which time they are properly prepared for the hothouse. In getting them into the pine pits, if they appear dry, we water them again, treading them in layers exceedingly well till the pit is quite full. We then cover the whole with tan to the thickness of two inches, and tread it well till the surface becomes smooth and even. On this we place the pine pots in the manner they are to stand, beginning with the middle row first, and filling up the spaces between the pots with tan. In like manner we proceed to the next row, till the whole is finished; and this operation is performed in the same manner as when tan only is used.

"Thus prepared, they will continue a constant and regular heat for twelve months, without stirring or turning; and if I may form a judgment from their appearance when taken out, (being always entire and perfect,) it is probable they would continue their heat through a second year." After some further details this writer observes, "I believe oak leaves are preferable to those of any other sort; but I have found by repeated trials, that the leaves of beech, Spanish chestnut, and hornbeam, will answer the purpose very well. It seems that all leaves of a hard and firm texture are very proper; but soft leaves that soon decay, such as lime, sycamore, ash, and those of fruit trees in general, are very unfit for this mode of practice."

The superiority of oak leaves as a material for hot beds according to this writer, consists in the following particulars:—"They always heat regularly; for during the whole time I have used them, which is nearly twenty-five years, I never once knew their heating with violence.

"The heat of oak leaves is constant; whereas tanner's bark generally turns cold in a very short time, after its furious heat is gone off.

"There is a saving in point of expense, and decayed leaves make good manure; whereas rotten tan is experimentally found to be of no value."

We are assured that great use is made of leaves for manure in some parts of Europe, and that farmers pay for the privilege of gathering them from public walks, shaded by trees, as well as from forests. Our excellent correspondent J. M. G. of Weston, Mass., in a communication, published in the New England Farmer, vol. vi. page 102, observed that "the gathering of leaves" may be greatly accelerated by suitable arrangements: a cart with ladders fore and aft, and long slats of boards to go from ladder to ladder to secure the sides and stakes, is the best adapted carriage. The leaves should be raked into small heaps, a sheet of tow cloth two yards square, should then be laid on the ground, and the small heaps be raked into it; when full a man ties the corners of the sheet, and hands it to a boy, who keeps on the cart and receives it; he unties the bundle and lets the contents go, and keeps treading all the while; in this way a load is soon obtained; and to the above tackling, some little brush may be added to the sides of the load to build it up, and hold on the leaves. I have tried to use baskets to load the leaves: but have found the above sheet to work easier and quicker, and in order to make it more durable, I have had a small rope sewed round the edge of it, and let out about eighteen inches at the corners, which make it easier to tie, and secures the sheet from getting torn. Such a sheet will cost about one dollar.

"In the use of leaves, hogs excel; for whether as a litter in the covered part of the stye, or whether thrown in moderate quantities in their yard, when miry, they soon work them, and secure them from the power of the wind; when used for littering cattle it is absolutely needful to work them with their dung. When the floor is cleared in the morning, the dung, urine and leaves, should be well worked and chopped together, with the shovel before they are thrown out on the heap; if it is not done, the wind will surely take hold, and disappointment ensue; when so mixed, they will soon dissolve in the ground, and seldom any trace of them be seen in the fall, when potatoes are dug."

Bishop's New Early Dwarf Prolific Pea.

Mr. Jude Kimball, of Lyndon, Vt. has cultivated this pea extensively the past summer. He considers it a most valuable variety, being very prolific, of the richest flavour, and continues in bearing a great length of time: one vine 12 ins. high produced 108 pods, two had 94 pods each, and many had from 50 to 70 pods each.—It seldom grows more than 10 to 14 inches in height, of course requires no sticks. It is but a few days later than the Early Washington Pea. It should be planted 2 or 3 inches apart in the rows. which its spreading habit require, and which answers better than when sown closer; hence it is obvious there will be a great saving of seed, as a quart of this will go as far as three quarts of other peas. It begins to blossom when three inches high. They should be planted every fortnight for a constant succession, and green peas may be obtained all the summer and autumn. From the nature of its growth, it appears well calculated to withstand the great heat of our summers. [*Ib.*

RURAL ECONOMY.

MERRIMACK AGRICULTURAL SOCIETY.

Extract from a Report of the Committee on Cheese.

The art of Cheese-making, like that of book-making, is of great antiquity. Not that cheeses, two thousand years ago, were fabricated and pressed just as they are at present—neither were books. Both have undergone great mutations—but still they were CHEESES, and still BOOKS. In proof of the antiquity of the one, look at Job, who, centuries before the Christian era, gave utterance to the aspiration that his "adversary had written A BOOK"—thereby clearly implying and setting forth that such were known and had existence. In support of the antiquity of the other, the evidence is still more conclusive. Hippocrates, who flourished two thousand four hundred years ago, treats of cheese as an article of food among the ancient Scythians. It was also in use among the Greeks and Romans, the Abysinians and ancient Germans. Writers generally, and we believe without hesitancy, concur in the fact that cheese was known, and manufactured to considerable extent, before butter came into use. Now by recurring again to Scripture, we find that as long ago as the reign of the Judges in Israel, in the time of Deborah and Barak, more than three thousand years since, Jael, the wife of Heber the Kenite, is spoken of as "bringing forth BUTTER in a lordly dish." Putting these facts together the evidence is irresistible that if butter is old, cheese, which age makes far better, is still older. In addition to this, there is direct evidence from Scripture, that in the reign of David, more than 1000 years before Christ, "cheese of kine," was brought to him in Mahanaim, and set before him to eat. Not a doubt can remain, then, that the art of cheese-making, and the practice of cheese-eating, are both ancient and honorable. The antiquity of the office of cheese inspectors, we are free to admit, is of more doubtful authenticity. Probably there was in olden times, less disputing about taste than at present—and our sage forefathers were content to "touch, taste and handle," each for himself. It was reserved for this age of light and knowledge, which has exploded ancient theories, and blown "sky high" the thousand and one vulgar notions of the old world—not the least pertinent of which to our present purpose is that of the moon being made of green cheese—it was reserved, your committee would with deference remark, for this age of clear light, by the formation of associations like the present, to give existence to the Committee of which we have the honor at this time of being enrolled as members. As such we act on the present occasion; not on the old and selfish principle of each one's helping and tasting for himself, but on the mutual and reciprocal principle of helping each other. We are therefore disposed, having tasted for ourselves, and our brethren of the society, of the cheese spread before us in such abundance, to impart freely of our knowledge and opinion of the comparative good qualities of the samples exhibited.

Five samples of Cheese were presented to us for examination and all very good. Your committee, however, had no hesitancy in at once fixing on the best. The four remaining lots were nearly equal in quality, and our judgment was divided respecting them. On a second trial we came to the conclusion as now reported, and do accordingly adjudge:—

To Cheese No. 2, exhibited by Mr. Enoch Gerrish of Boscawen, the first premium of $2. To Cheese No. 1, exhibited by Charles Glidden, Esq. of Northfield, the second premium of $1.

Your Committee, through their Chairman, having entered upon an analogy at the onset, which may seem to have been but poorly sustained, would ask the indulgence of the society for a moment to an imperfect completion of the comparison between cheese-making and book-making. In the first place, then, touching the material of which they are respectively composed, neither cheese nor books are worth much unless the authors have been WELL FED and GIVE DOWN THEIR MILK. Cows that roam in barren or stinted pastures, with no running fountain at which to drink, and no refreshing shades under which to repose, are in the worst sense but a forlorn hope in the department of the dairy. So authors who have not drank from living fountains—from "the well of English undefiled"—who are either so barren that they cannot, or so perverse that they will not, impart of the full flow of the animating and embodying and vivifying principle, furnish but a poor accession to the literary force of a country. Still further—cheese, like books, to be relished must be well seasoned with salt, otherwise they are both 'stale, flat and unprofitable." Attic salt is of use in the one case, and the best of Liverpool, or of our own country, is good enough in the other. Again—after being made and placed on their destined shelves, they should often be turned over and examined, otherwise they will be likely to come to a bad market. And, lastly, to be fully enjoyed, the contents of a good cheese, like a good book, should not be merely cursorily examined, but inwardly digested. This your Committee feel to have been in some good measure the case, in their examination of the former article, on this anniversary.

The article of cheese is one of great importance in the economy of the husbandman. If made well, it always, we believe, insures a ready market and a fair price. Vast quantities are consumed in our own state, and much goes from and 'passes through here for the East and South. If of good quality, and well manufactured, it is probably a more certain article than butter, and can be made to advantage at a season of the year when butter cannot. Cows kept for the cheese dairy are said not to require so rich pasture as those designed for the making of butter. English writers say that the white clover and the honey-suckle, which go greatly to enrich the quality of butter, are not the best kind of food to furnish suitable milk for the making of cheese. Old and even cold pastures are said to supply very suitable food in such cases—whereas new, sunny and rich pastures are ones for butter. These, and these alone, give proper color to transactions in this department. In the manufacture of cheese, much more, it is believed, depends on the skill and attention of the materials composing it. A favorite kind of the celebrated Parmesan cheese is represented as made of skimmed milk, or at least of night's milk skimmed, and warmed and mixed with the morning's milk. This use of skimmed milk is, however, with us rather a hazardous experiment, and is by no means recommended as a suitable ingredient in the composition of first rate cheese. "Hearts of oak" are good in their places; but we had much rather see them encased in fleshy humor, and manifesting their resistance to acts of oppression from their enemies, than in the nicely rounded envelope from the plastic mould of the dairy, and hurling defiance in the teeth of their friends.

Although much, as we have said, depends on the skill of the manufacturer, still it is but a concession due to truth, that our small farmers cannot, in the general way, however good and skilful their dairy-women, make the richest kinds of cheese. To do this to perfection requires the keeping of a sufficient number of cows to make at least a cheese, of good and suitable size at every milking. There is then an uniformity as well as a mellowness and richness about the article, which there is not when milk of from 12 to 48 hours old is mixed together, of different ages and in different quantities.—The dairy-women in a certain district in Cheshire, England, famous for the making of cheese, are so sensible of the importance in cheese-making, that "when it is to be done, 'twere well if 'twere done quickly," that they join several dairies together, during the season of manufacturing; and their average cheeses are of an hundred pounds weight. The United Society in this neighbourhood, a pattern of neatness and industry, as well as sagacious forecast and prudent management in the transaction of their concerns, have found their account in this mode of manufacture. One, certainly, of their cheeses, of about this size, is said to have found a ready market, and HONORABLE commendation at our commercial emporium; and although this was larger than is always PROFITABLE to make, they still practise on the plan, and no doubt find their account in it, of making their cheeses from milk of an uniform age and temperature, and of a large and respectable size.

In conclusion, your Committee would observe, that we yield to no section of the world in the general skill of our fair country-women. Their adroitness in the manufacture of cheese has perhaps been less manifested in this State than in some others—and less than their skill in other branches of household industry. But the fault is not so often theirs, as that of their husbands. Our farmers have been too often content with a scrubby and scurvy race of animals for the furnishing of their dairies—"and also" not "much cattle," such as they are. This procedure should be corrected; and we are happy to state that the quality of the stock in our farm yards is undergoing a radical though gradual improvement. There is no more honorable employment, it seems to us, in the line of husbandry, than that of the dairy-woman—and no branch of domestic industry in which neatness and good judgment can be better displayed. A good dairy woman richly merits for her companion a good husbandman, and from such a connexion, "the fruits of good living," in a temporal sense will surely spring. If our young dairy-maids are not often subjected to the test of "a choice by cheese," in the manner, the story goes of the man in quest of a wife, who was guided in his choice between three sisters by the different disposition they each made of the rind—the one eating it, the other throwing it wholly away, and the third nicely and carefully scraping it—still their good or evil destiny is, more often than they are aware of, determined by their neatness and good management in the affairs of the dairy department.—Taken in a broader sense than the one to which it was limited in the wholesome advice of the happy suitor just referred to, there is much of truth in his concluding direction, that

"The man
Who fixes on a nuptial plan,
Can never err, if he will choose
A wife by CHEESE, before he ties the noose."

All of which is respectfully submitted—by
GEORGE KENT, *for the Committee.*

(From the Southern Agriculturist.)

On the Culture and mode of Cooking the Salsify, and the drying of Peaches; by Mrs. N. HERBEMONT, *of Columbia.*

The last summer we had the pleasure of spending a short time in the company of Mrs. HERBEMONT; from whom we learned many interesting particulars relative to the culture of Flowers, &c. Her attention, however, is not wholly bestowed on her Flower Garden and Shrubbery, but the Kitchen Garden, also, receives some share of it. In the course of conversation the Salsify was mentioned, and from what then passed, we have been induced to request from her, directions as to the best mode of cultivating and dressing it, and we received a few mails since, the annexed directions for that vegetable. It will be seen that Mrs. HERBEMONT recommends that it be sown in February; this period is proper in the lower country for the spring crop, but it may also be sown now, and will be fit for use in the spring.—The Recipe for Dried Peaches (written also at our request) we can assure our readers is most excellent. We have partaken of Peaches prepared (according to this mode) by Mrs. HERBEMONT, and therefore speak from our own knowledge.—ED.

We sow Salsify here in February; but in the low country it might be better a little earlier. Manure a piece of ground well with good rotten stable manure, spread it even on the surface, then spade it by putting the spade perpendicularly down the full depth of the spade, and with the foot give the spade another push, to be sure that the earth is turned over at least a full spade deep; also leave a trench as it is spaded; fill the trench at the end of the spading with good earth taken any where. It is a slovenly way of working to put in the spade slanting, and not to leave a trench. Lay the beds off as for carrots, and sow the seeds exactly the same. It requires as much room every way. The Salsify will be fit for the table at the same time as the carrots; but it is much better the winter following; particularly as there is no great variety of vegetables at that time. It is probable the failure complained of is owing to the seed. There are two kinds, one with a dark purple blossom, and the other with a yellow blossom not worth planting. I shall take pleasure in sending you seed of the former kind.

Now for the Cooking—To begin with the best way first. 1st. Boil the Salsify, scrape them, cut them in half, lengthwise, and dip them in a rich batter, and fry them in lard.

2d. Boil the Salsify, mash them in a piggin as potatoes are mashed, then put in batter, mix it well, and fry it in little patties.*

3rd. Boil the Salsify, and then slice them cross-wise, put them in a saucepan with a little butter, a spoonful or two of cream, a little pepper, and some salt: stir it till it is of a light brown, hardly coloured.

N. B. In making the batter, put in a large tea spoonful of ground ginger.

As we are on the subject of eating, cooking, &c. a method of keeping flies from fresh meats may as well be recommended. It is simply by shaking fine black pepper over all the cut places, the ends of the bones, and the loin bones. Wherever the pepper is, a fly will not approach. It is no detriment to roast meat, and for boiled it can be washed off.

DRIED PEACHES.

Just before quite ripe, peel Peaches, either plum or soft Peaches. Take out the nuts, put them in boiling water till they are a little soft. Take them out and throw them into a pail-full of cold-water, when cold, drain them and weigh them. To every pound of Peaches put half a pound of powdered loaf sugar. Lay the Peaches in a kettle, and sprinkle the sugar till it is all in. Let it remain till the syrup runs sufficiently to allow putting it on over a very slow fire. When the sugar is all melted, let them boil slowly, till the Peaches look clear, put them in a large bowl and let them remain all night. The next morning place them singly in dishes, and put them in the sun to dry. Turn them over every day, till they are sufficiently dry to be packed in boxes or stone jars. The soft Peaches are as good, if not better than the plum or cling-stone Peach, and the nut is taken out much easier.

The Peaches will, some of them, break in doing, after they have been in the sun two or three days, with a teaspoon and a silver fork draw the broken pieces together in the form and size of a peach, and they will dry solid.

There will be more syrup than can be dried with them, which may be used, by boiling some Peaches prepared as above in the spare syrup. These will be inferior, but still good.

In April last, there died at Pleskow, in the government of Novogorod, (Russia,) a farmer named Michofsky, who had attained the wonderful age of 165 years. He led a very sober life, though occasionally he partook of ardent spirits. He never ate meat more than twice a week. At 120 he still labored in the field, and only desisted on account of a sprain in his foot. He has left 4 children, 36 grand children, and 16 great-grand-children.

(From the United States Gazette.)

IN RELATION TO WATERING AND FEEDING HORSES.

To prevent all inflammatory disorders arising from the too prevalent practice on the part of the inexperienced, in the use and application of the necessary and proper quantity of both food and water, to the comfort and preservation of their health and consequent usefulness—I subjoin the following unerring rules and directions, to secure and insure the health, vigor, and consequent utility of this most valuable and indispensable animal, to man.

When the horse is heated from any cause great care should be taken while in that state, to allow him to take but a very small quantity of cold water at a time—say not more than two quarts, which may be repeated at intervals, during his meals which should also be limited. New hay and corn should always be rejected, when pure hay and oats can be obtained; the natural and certain tendency of the introduction of either new or green hay, and Indian corn (in too great quantities) into the stomach of a horse, is to produce diseases in that organ, and consequently the derangement of his whole system; the animal is rendered therefore worse than useless; for delays, and frequently further remedies are vainly sought for, because it too often happens, that from the ignorance of the operator, he adds to the malady, instead of removing it.

Give your horse, (after, and while he is heated) one quart of oats or dried corn, with a sprinkle of salt, after his first draught of water, of two quarts. These portions of each, water and food, may be repeated at discretion, during the reasonable but necessary time for the rest of the animal, and you may then with certainty and safety, pursue your journey to any distance and time.

Recipe.—When the above directions are omitted, and the bad effects are apparent, give the animal the following:—

Tincture of Benzoin, one ounce; Spirits of Ammonia, one do.; Aromatic Confection, half an ounce; Ginger one ounce. To be mixed in one quart of water. When a horse is over heated, this application will relieve him—and it may also be given with success, in cases where a horse is affected with cholic or gripes, flatulency in the stomach or intestines, mixed with a pint of warm oil—to be repeated at every three hours until relieved.

WM. COOKE,
Veterinary Surgeon.

MISCELLANEOUS.

(From the Providence Microcosm.)

TROUT FISHING.

The Augusta (Geo.) Courier tells a pretty fair story about a catfish tow, and a horseback ride on a sturgeon, which we will quote, at the end of this chapter, promising, however, that we protest against this profanation of the term "trout fisher." A "*trout fisher*" with a *hand* line fastened round his leg! How monstrous! This would indeed be like what the surly Dr. Johnson irreverently compared a real disciple of the angle to; a rod with a fool at one end and a worm at the other. By the way, Sir Humphrey Davy, in his delightful "Salmonia," has extracted more genuine philosophy from a trout brook, than ever the Dr. did from his *tea*, were it all put into one grand reservoir.

But to return to our Georgia contemporary, who talks about trout fishing, as if they really had trout in Georgia. We believe the beautiful Leopard of the brook, is not found south of Pennsylvania, and not there in perfection. In the ponds and lagoons of Georgia there is, however, a fine fish for the angle, (though not very choice for the table) denominated trout, which we have often taken with great pleasure. It resembles our bass, except that it is bright and silvery without stripes; or it comes nearer to the white fish of the lakes. It is a little hogbacked, and in form resembles a brook trout considerably, but has no very distinct spots, and the flesh is white. The animal sometimes rises to ten or fifteen pounds. It will not take the fly, and is caught by a live bait fastened to the hook back of the dorsal fin, which ought to be played with a rod and reel, but never by hand. When a strong fish of this species strikes, he will give you fine play, and exercise all your skill to keep him from breaking you. He kills, however, much easier than the "monarch."

---

* A little corn cut from roasting ears that has been previously boiled, mixed with the Salsify, adds much to the flavour.—Ed.

But there is no comparison, none at all, between sitting with your rod in a shallop in one of the low, marshy lagoons of the south, surrounded by huge alligators sunning themselves lazily upon the blackened logs that float upon the turbid water, whose sluggish surface is not unfrequently rippled by the darting of the deadly moccasin hissing past you—and treading the verdant banks of some beautiful, rippling brook in N. England; gurgling and leaping in its living course to the ocean, with its cool retreat for its wary tenant, "under the shade of melancholy boughs," or amid the still water of an eddying pool. Here you may watch your delicious prey, as he rises to the surface, elastic as a bubble, and just breaks the water with his motley fin, as he seizes the careless fly that sports within his range. Then drop the artificial bait, just above the ripple, as gently as a falling gossamer—you have him! but beware you do not strike too soon, and take care that your eagerness to land the struggling victim, does not spoil your sport. Give him play, only guarding against his entangling you around a root or a weed, and he is yours. The tension of the line, while he is fast, compels him to close his gills, and in that condition the functions of respiration are suspended. He grows weaker and weaker, until he lays panting on his side, with his brilliant spots spangling the surface of the stream. Even then, if you have not the hand net, to pass gently under him, be cautious how you land him, or one desperate struggle will leave you snoodless and reproaching yourself for having lost the *biggest fish*, ever hooked! for it is a remarkable fact that anglers invariably *lose* the largest fish!

Should any sentimentalist declare that this is killing the poor fish in a cruel manner, we can assure them, on the authority of as great a philosopher as Sir Humphrey Davy, that if it is only done scientifically it is as pleasurable as being tickled to death! In fact the cold blood of a fish and the absence of nerves, renders him insensate comparatively, and the gradual fainting death which he meets when played in the water, is less painful, (if he suffer any pain, which is doubtful) than to draw him suddenly from his element, and leave him to expire in the atmosphere. Seneca in the Bath, did not expire more gently than the "monarch" yields his life under the gradual sospension of respiration procured by the scientific process of drowning. 'Tis only when the delicate creature is torn with ruthless violence from the stream, that our sensibilities should be excited.

But now for the Georgia Fish story.

"One day a trout fisher fastened his *hand line*, (a large strong line, whose hook is thrown off thirty or forty yards in the river) to his leg, finding the multiplicity of his tackle inconvenient to manage. A large cat fish, weighing forty-eight pounds, seized the bait, and before our fisherman was well aware of the fact, he was posting down the river faster than a tow boat astern of a steamer. Luckily, the catfish, as much alarmed as its follower, did not keep the channel, but attempted to pass a sand bar, which nearly crossed the stream. Here our almost breathless acquaintance caught hold of something which brought the fish to a sudden halt, and the fisherman was enabled to avenge himself for his temporary discomfiture. The other case occurred only a few miles above the city. The sturgeon in the heat of summer is very sluggish, and will lie panting like a hog in the coolest parts of the stream, regardless almost of the approach of danger. Our friend found one of these animals seven and a half feet long in a shallow part of the river, and being much of a man, thought he could master him by jumping astride of him, and at the same instant, clapping his hands into his gills He jumped, and was successful in placing the fingers of both his hands in the fish's gills. Instantly the animal darted down the river like a race horse, sometimes under the water, sometimes out.—The rider could neither stop him, nor get his hands out of his gills, which clasped them like a vice. Fortunately the frightened animal, after a race of upwards of a quarter of a mile, bolted into one of our friend's own fish traps, and there the spectators who had pursued on the bank, finally found him swearing in the most positive manner it was the last sturgeon he would ever ride.

RECIPES.

TO PURIFY OIL.

Mix Olive Oil with a good quantity of water; agitate and whip it up well: suffer it to subside, then scum off the oil and bottle it. The mucilage which disposes the oil to rancidity is detained in the water, and the oil when deprived of it will be better, more fluid, and may be kept sweet for years. I have experienced the benefit of this for table purposes, and Clock and Watch-makers would doubtless find it useful in their business. Castor Oil, which is usually obtained by expression, I should suppose would be preserved from rancidity if treated in the same way; and if no consequence to the doctors, I assure them it is a very serious matter with patients.

COUSIN TABITHA.

ANTIDOTE AGAINST VENOMOUS BITES.

Consul Henry Perrine writes thus in a letter to Dr. Samuel L. Mitchill, dated

"*San Juan Baptista Tabasco, Aug.* 30, 1830.

"I now send, in the brig Eliza, a box, under the care of Mr. Clark, the best variety of the *vejuco del Guaco*, (well rooted) so celebrated here, as a remedy for the bites of venomous serpents—and a copy of an extract from a Gautemala Gazette of September 18, 1802, relative to its wonderful virtues. I also send a sufficient quantity of the dried plant for experiment. Its tonic qualities are certainly great. To doubt its antidotal powers, is here considered as heretical, as it was all over the world, until lately, to doubt those of vaccination. Mr. C. will furnish you verbally with any information in his power concerning the various other plants and seeds which accompany him."

Translation from the Gautemala Gazette.

REMEDY FOR THE BITES OF POISONOUS SNAKES.

In the kingdom of Sante Fe, there has been known for a long time among the Indians and negroes, a most efficacious remedy against accidents caused by poisonous serpents. It consists of the root of a sarmentose plant called *Vejuco del Guaco.* It not only removes the injury done by the bite, but secures those who have taken it beforehand, from being bitten. From the manner in which the Indians and negroes apply the plant, they have no fear of taking the most venomous serpents into their naked hands. *Don Pedros Oribe y Vargao*, who has given this intelligence in the *Mercury of Spain*, declares, that a negro slave took repeatedly into his hand one of the most poisonous snakes, without injury, and without any attempt, on the part of the creature, to hurt him. In going about the fields, there is no apprehension whatever from these reptiles. Finally, he says, that after having repeated these proofs, on himself and others, always successfully, he had published a memoir on this admirable antidote, in the periodical paper of Sante Fe. It is called *Vejuco del Guaco*, from a bird of prey that feeds chiefly upon snakes, and which utters a monotonous cry of *Guaco.*

THE FARMER.

BALTIMORE, FRIDAY, DEC. 3, 1830.

OBITUARY.—It is with regret that we have to announce the death of Mr. ANDREW PARMENTIER, the proprietor of the Horticultural Botanic Garden at Brooklyn, near New York. He died on Friday last, (26 Nov.) The following tribute to his memory is from a letter written by his interesting young daughter to the editor. It was of course not intended for publication; but is so creditable to the youthful writer that we cannot resist the impulse to give it to the public.

MR. SMITH: *Brooklyn, Nov.* 29, 1830.

My mother desires me to fulfil the painful duty of informing you of the terrible loss we have sustained in the death of my dear father, after an illness of seven weeks and three days. His personal qualities and mild character made him the best of husbands and fathers. The establishment under his good management and honest principles, had acquired a reputation which he so well merited, and which was about to enable him to reap the fruits of his labours and industry, when death cruelly took him away from his afflicted family. His last moments were those of a good christian. He was not only resigned to die, but wished for death. He bore with the greatest patience and courage his great sufferings, and spoke to us about all our duties, and expressed the hope that we would die like him with a tranquil and calm conscience. He was sensible to his last moment, and wished my dear mother to continue the establishment for the good of his children, which she hopes to do. All his friends, more numerous than we could have expected, attended his funeral yesterday, and all advised my dear mother to not allow a chef d'œuvre of industry of my respected father to go into other hands, and they assured her that they would do every thing in their power to assist her in her great undertaking; and she has the certitude that you will still be as good to the children as you have been to the father. Very respectfully,

ADELE PARMENTIER.

GROUND OYSTER SHELL AND BONE MANURE.—The great value of ground oyster shells as a manure for light sandy soils, will be apparent to the mind of every agriculturist on a moment's reflection. Containing a large portion of saline, animal and marine vegetable matter, it immediately enriches the soil, and keeps it cool and moist, while by its gradual decomposition a permanent and rich manure is supplied. For stiff, clayey and sour land, burnt shell is undoubtedly much the best; and thus in this, as in all other cases of the application of manure, a proper discrimination is necessary to the appropriation of that which is best adapted to the different kinds of soil. Hence the great utility of a knowledge of agricultural chemistry. A very partial acquaintance with this branch of chemistry, however, will enable any farmer to distinguish between soils which require lime and those which require ground shell. We were called a few days since to examine a mill erected by Mr. Cragg, in Old town, near the Falls, for grinding oyster shells, and were highly gratified with the visit. Mr. Cragg has at considerable expense erected a mill, and can supply any quantity of the ground shell at about 6 cents a bushel. This we believe will be the cheapest and best manure that can be applied to lands adapted to its use. Gardeners near the city will find especial benefit from its application, as it will not only prove immediately effectual, but enrich their soil for many years. There are some vegetables that absolutely require this species of manure to bring them to the state of perfection of which they are capable, and indeed which is natural to them. Of this class are all marine vegetables, such as asparagus, seakale, &c. It is believed that if asparagus beds were once wel dressed with ground oyster shells, they would yield much more abundantly and much finer asparagus than they do with stable manure. For proof of this let any one examine the natural growth of asparagus on the shell banks on the shores of the inlets along the southern sea-coast. And that such manure is essential to the perfection of seakale, is proved by the fact, that this excellent vegetable is found in its natural state no where but on the sea-coasts, where it can have the advantage of marine manure.

We hope, ere long, to see mills erected for grinding bones also. It is believed that they would be very profitable around cities, where bones can be abundantly collected; and the cost of them would be trifling—scarcely more than the expense of gathering. The value of this kind of manure has been sufficiently tested in England, where it is used most extensively. That country pays several millions of dollars annually for bones brought from the continent for manure. Gentlemen who have examined the mills for grinding bones in England, represent them as resembling our cast iron bark mills, the only difference being in their larger size and stronger construction. They generally consist of two sets of grinders, one above the other; the one for breaking the bones into small pieces, and the other for grinding them into powder. This is also a very permanent manure, as the bones are composed of a large portion of lime; and on account of this animal matter, they are suitable for all kinds of vegetables containing any considerable portion of gluten, such as wheat and other grain, beans, peas, and a variety of others. We hope Mr. Cragg will meet with such encouragement in grinding oyster shells, as will induce him to commence grinding bones also.

Will the Editor of the American Farmer permit me to inquire what has been the fate of the Maryland Agricultural Society? Some say it is dead, whilst others affirm it to be in a state of torpidity; and as we know some animals to be liable to this extraordinary influence until it is hard to discern apparent from real dissolution, would it not be well to hold an inquisition over the body, to the end, that if actually dead, the cause of its decease may be ascertained, and an administration be had upon its effects? Some say it died of plethora—others that it gradually sunk under a lingering consumption. The public admits that it *produced* many good things, and there are not wanting at least *a dozen* who can testify that it caused many good things to be *consumed*—hence, if dead, it is at least entitled to christian burial. Q.

LARGE PUMPKINS.

Extract from the National Intelligencer, of Wednesday, Nov. 17, 1830.

"The Raleigh Register says, Mr. William Whitfield, one of the most enterprising and systematic farmers in Wake county, N. C. presented us on Friday last with a Pumpkin, weighing 86 lbs. and measuring in circumference five feet two inches. Beat this who can."

Mr. Smith: *Economy, Pa. Nov* 25, 1830.

Dear Sir,—The above statement induced me to weigh and measure a Pumpkin I have lying in my yard at this time, raised on our farm, without any particular care, weighing one hundred and twenty-four pounds, measuring three feet long and fifteen inches high, which will give a circumference of nearly four feet one way, and eight feet six inches the other. In case you consider it worth while you will please give it an insertion in the "American Farmer."

Yours, respectfully, Frederick Rapp.

Prices Current in Boston, Nov. 26.

Apples, new, bbl. 1.25 a 1.50. *Beans,* white, bushel, .90 a 1.00. *Beef,* mess, bbl. 6.50 a 9 .00; cargo No. 1, 7.00 a 7.50; No. 2, 6.25 a 6.50. *Butter,* inspected, No. 1, new, lb. .13 a .15. *Cheese,* new milk, 5. a 7.; skimmed milk, 3. a 4. *Flour,* Baltimore Howard-st. 5.75 a 5.87; Genesee, 5.62 a 5.87; Rye, best, 3.50 a 3.75. *Grain,* Corn, bu. .64 a 66; Rye, .68 a .70; Barley .58 a .60; Oats 36 a 38. *Hogs-Lard,* 1st sort new, lb. 12.00 a 12.50 *Pork,* clear, bbl. 17 a 18; Navy, mess, 12.50 a 13.00; Cargo, No. 1. 12.75 a 13.75, *Seeds,* Herd's Grass, bu. 1.75 a 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .33 a. 38; White Honeysuckle Clover, 25 a .38; Red do. Northern, 10 a 11; French Sugar Beet —— Mangel Wurzel ---- *Wool,* Merino, full blood, washed, .50 a 62; do. do unwashed, .30 a .35. Merino mixed with Saxony, .62 .67; Merino three fourths washed, .52 *a* .57, do. half blood, .47 *a* .50; do. quarter, 37 *a* 40. Native, washed .36 a .38; Pulled, Lambs', 1st sort, 52. a 53; do. 2d sort, .40 a .42; Pulled Spinning, 1st sort, 45.

Prices Current in New York, Nov 30.

Beeswax, yellow .20 a 22. *Cotton,* New Orleans .11½ a .13½; Upland, .9½ a .11½; Alabama, .11 a .13. *Cotton Bagging,* Hemp, yd. .18 a .20; Flax .12 a .16. *Flax,* American, 7 a 8. *Flaxseed,* rough, cask — clean 10.25 a 10.37½. *Flour,* N. York, bbl. 5.6¼ a 5.12½; Canal 5.12½ a 5.37½; Balt. Hwd. st. 5.50 a —; Rich'd. city mills, 5.69 a 5.75, country, 5.12½ a 5.25; Alexand'a, 5.12½ a 5.31; Fredericksburg 5.12½; Petersburg, 5.12½ a 5.25; Rye Flour, —— a 3·75; Indian Meal, per bbl. 3.31 a 3 50; per hhd. 14.50 a 14.75. *Grain,* Wheat, North, —— a 1.06; Vir- 1.00 a 1.05; Rye, North, 68 a 70; Corn, Yel. Nor. .61 a 62; Barley, 75 a 77; Oats, South and North, .28 a .36; Peas, white, dry, 7 bu. –. Beans, 7 bu. 7.00 a 8.00. *Provisions,* Beef, mess 7.75 a 8.00; prime 5.00 a 5.25; cargo 4.00 a —— Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 9. a .10; Pork, mess bbl. 14.00 a 14.25; prime 9.50 a 10.50; cargo ——.

Prices Current in Philadelphia, November 27.

Bees-wax, yellow .21 a .22; *Beans,* bushel .75 a .80. *Beef,* mess 10. a 10.50, prime 8 a 8.50, cargo 7; *Butter,* No. 1, 7½ a 8, No. 2, 6. a 6½; *Cotton,* New Orleans 12 a .13; Mobile 11½ a 12½; Tennessee 11 a 12, Alabama 11 a 12½; *Feathers,* South. .36 a .—, West. .36 a .—; *Flax* .6 a .7. *Flour,* sup. 5.00; fine, 4.75 a —— Rye 3.31¼ a —— Corn meal, hds. 13.25 a ——, bls. 2.87½ a ——; *Flaxseed,* cask ——; bu. 1.30 a 1.35; *Grain,* Wheat .93 a 1.00 Rye 55 a 56, Corn l. c. white, 50 a .51, l. c. yellow, 52 a .53, u. c. round, 58 a 60; Oats .30 a .32; Barley, Pa. .60 a .62; do. East. 75 a 77; black-eyed Peas .40 a .50. *Hams,* Jersey 11. a 12½, Virginia 10 a 11, Western .10 a 10½. *Hemp,* 220 a 225; *Lard,* .10 a .12; *Oil,* linseed, 75 a 78. *Pork,* mess, —— a 15, prime 13. a 13.50; cargo 11.50 a 12. *Rice,* 3.— a 3.50; *Tobacco,* Kentucky .3½ a .6 Vir. .3 a .5.

MORUS MULTICAULIS, OR NEW CHINESE MULBERRY, &c. &c.

About fifty young trees from two to three feet high can be supplied of this most valuable variety, latterly introduced to France from the Phillippine Islands, and found to surpass all other kinds of the Mulberry for silkworms, price $9 per dozen.

Also fourteen other varieties the most esteemed in France, Italy, and Turkey, for the silk culture, including the *Broad lobed leaved, Large oval leaved,* Count Dandolo's celebrated *Foglia doppia,* and the *Tartarian,* particularly esteemed for its peculiarly hardy character, and which would probably support the winters of Lower Canada. Several of the new sorts have extremely large leaves and are of exceedingly vigorous growth.

Olives of a great variety of the choicest French, Italian, and Grecian varieties.

Strawberries of above fifty choicest varieties.

Ten thousand English Royal Oak, a subevergreen holding its foliage very late, these are from three to five feet in height at $80 per thousand.

Five hundred Madeira Nut or English Walnut, ten feet in height.

Also all the varieties of fruit trees, among which Cherries, Pears, Plum, Peaches, and Nectarines can be furnished of *extra large* size.

Orders for the above, or for any other articles desired, will be promptly executed.

WM. PRINCE & SONS.
Gideon B. Smith, Agent Baltimore.

N. B. Prince's Treatise on the Vine, and Treatise on Horticulture, may be obtained of the agent.

MESSRS. D. & C. LANDRETH'S GARDEN SEEDS.

The Subscriber would inform the public that he is now furnished with a fresh supply of the Messrs. *Landreth's* celebrated GARDEN SEEDS, of this present year's growth, which he offers wholesale and retail, at the Messrs Landreth's prices in Philadelphia. His whole stock of SEEDS now on hand, are of the growth of 1630, and can be warranted with the greatest confidence.

J. S. EASTMAN,
West Pratt, between Hanover and Charles streets.

BALTIMORE PRICES CURRENT.

Baltimore Market.—There is not the slightest change in either flour or grain—a tolerable business doing in both, and sales at quotations. Beef has advanced a little; and, as drove hogs are now in the market, we have added pork on the hoof to our quotations.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 3.50 a 4.00; brown and red 4.00 a 5.50; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 315 hhds. Maryland; and 21 hhds. Ohio; total 335 hhds.

Flour—best white wheat family, $5.50 *a* 6.00—super. Howard-street 5.06 *a* 5.12½; city mills, 4.75 *a* 4.87½—Susquehanna, ——; Corn Meal, bbl. 2.25 Grain; red wheat, 95 *a* 1.00; -white do. 1 03 *a* 1.07—Corn, old white, .55 *a* .56——old yellow .56 *a* .57——new corn .48 *a* .50---Rye, .56 *a* .58—Oats, .29 *a* 30.---Beans, 90 *a* 1.00-Peas, 50 *a* 60-Cloverseed 6.00 *a* 6.50, Timothy, 2.00 *a* 2¼.—Orchard Grass, 1.25 *a* 1.50——Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½ Flaxseed 1.18 *a* 1.20-Cotton Va 9½ *a* 10½-Lou. 11½ *a* 13¼—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 11 *a* 12½--Whiskey, hhds 1st p 27 *a* 27½; in bbls 30 *a* 31——Wool, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.25, *a* ———No. 2, —— *a* 5.75--No. 3, 3.50 *a* 3.62½ Bacon, hams, Balt. cured 10c.-Feathers, 35 *a* 36--Plaster Paris, cargo price per ton, 4.25 *a* – — ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.00 *a* 4.75—Pork on the hoof 4.50—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—-Hickory, $4.25 *a* 4.50.

EDITED BY GIDEON B. SMITH.

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AGRICULTURE.

(From the Journal of the Franklin Institute.)

MANUFACTURE OF SUGAR.

ENGLISH PATENT.

To William Godfrey Kneller, *Chemist, for certain improvements in Evaporating Sugar, which improvements are also applicable to other purposes.* Dated May 27, 1829.

I, the said William Godfrey Kneller, do hereby declare that my invention consists in a method or process, and certain apparatus as hereinafter described, by which I am enabled to evaporate liquids and solutions at a low temperature, and thereby to avoid the injury to which certain substances which require a nice and delicate application of heat, such as sugar, for instance, are liable to, by being exposed to too high a temperature. And I do further declare that my said invention and improvements consist in forcing, by means of bellows, or any other blowing apparatus, atmospheric or any other air, either in a hot or cold state, through the liquid or solution subjected to evaporation; and this I do by means of pipes, whose extremities reach nearly (or within such distance as may be found most suitable under peculiar circumstances,) to the upper or interior area of the bottom of the pan or boiler containing such liquid or solution, the other extremities of such pipes being connected with larger pipes which communicate with the bellows or other blowing apparatus, which forces the air into them. The pan or boiler may be of any shape or dimensions, but I prefer it with a flat, level bottom, and I introduce the liquid or solution to the depth of from about four to six inches. The heat may be applied to the lower or exterior area of the bottom of such pan or boiler by naked fire, steam, or hot air, in the usual manner, and by means well understood; the air then forced into the heated liquid or solution keeps it in a constant agitation, abstracts its heat, and carries off the steam or vapour which is to be expelled. By raising the degree of heat under the pan or boiler, and increasing the quantity and velocity of the air injected into the liquid or solution, or on the contrary, by lowering the heat and moderating the injection of air, the evaporation is accelerated or retarded at the pleasure of the operator, according to the nature of the substances or the effect desired.

And I do further declare that in applying this my said invention and improvements to the evaporation of cane juice or sirop for making refined sugar, I can bring it to the proof or crystallizing point by keeping the temperature of such sirop, or cane juice, between one hundred and forty, and one hundred and seventy degrees of Farenheit's thermometer, although I prefer to keep it between one hundred and sixty, and one hundred and seventy degrees. By this simple and cheap apparatus I obtain a great quantity of large and shining crystals, which hitherto were attainable only by evaporating in *vacuo*, a very troublesome and expensive process, while other methods, by exposing the sugar to a high temperature, impair the quantity, size, and brilliancy of the crystals, and form a great quantity of molasses or treacle.

And I further declare that these my invention and improvements can be applied to the evaporation of other liquids and solutions, as well as sirops and cane juice, or sugar, by varying the apparatus and the degree of temperature according to their nature and the will of the operator.

And I further declare that these my invention and improvements can also be applied to distilling or rectifying spirits, provided that a vent be given to the air arising with the spirit after the latter shall be condensed.

And I further declare, that in order more quickly to remove the steam or vapour from the surface of the liquid or solution, and thereby to favour the evaporation, I sometimes, and particularly when I use hot air for heating the pan or boiler, conduct the hot air, after it has given out part of the heat to the bottom of the boiler, to the surface of the liquor or solution, but I do not consider this contrivance necessary in any, nor advisable in all cases. It is hardly necessary to observe, that the evaporating power is augmented by increasing the diameter of the pipes, and the quantity of air propelled by the blowing apparatus through the liquid.

And I do further declare, that as it is desirable that the liquid to be evaporated should be of equal depth in every part of the evaporator, the bottom of which is recommended to be perfectly level; it will be found that the liquid when sufficiently evaporated and concentrated, does not readily flow out through the spout opened for the purpose; to remedy this inconvenience, I place a vertical sliding plate from four and a half to five inches in height, and somewhat less in length than the breadth of the evaporator or pan, such plate being kept in its upright position by projections at right angles with its lower edge, which must slide as nearly as possible in contact with the bottom of the same pan. This plate is in the first instance put at that end of the pan, or evaporator, which is opposite to where the spout is situated. When the evaporation is effected to a sufficient degree, I damp the fire, or shut off the steam or hot air, and open the spout to draw off the liquid, a great part of which will immediately flow out; I then by means of a winch, or lever, raise the pipes about six inches, and gently draw the said vertical plate by a thin wire or chain towards the spout, and thus quickly clean the bottom of the pan. It is necessary to raise the pipes in order that the before mentioned plate may pass under them, and at the same time not interrupt the blast of air through the small pipes, which might be obstructed if any of the evaporated liquid should congeal or crystallize in them by cooling. For effecting these objects the main pipe arising from the bellows or blowing apparatus, is inserted into the main pipe in the evaporator, in an air tight manner, but with a joint or flexible tube sufficiently long to allow the system of blowing pipes to slide upwards for about six inches. The form and construction of the apparatus which I use to produce the above effect, may be varied according to circumstances, and the form and position of the pan or evaporating vessel to which it is to be applied. But two things are essential in its construction, the first of which is, that however numerous the blowing pipes may be, that their lower orifices should be distributed as evenly and equally over the whole surface of the bottom of the pan as possible; and secondly, that a stream of air should issue from the lower end of every one of them at the same time. To insure this latter object it is immaterial whether the bottom of the pan or boiler be perfectly level, but it is quite necessary that all the lower ends of the blowing tubes should be on a level and parallel to the surface of the fluid to be evaporated, in order that there may not be a higher column of fluid in one tube than in another. The mode of construction necessary to produce these objects may be various, but in order the more distinctly to explain my meaning and my mode of operating, I hereunto subjoin a drawing of the apparatus which I have used, and find to answer the purpose, and in which A, A, A, A, Fig. 1,* is a plan or bird's eye view of an oblong pan or boiler, B, B, B, the tinned copper, or other large air pipes, which are closed at their end, C, C, C, but open into each other, and likewise into the still larger perpendicular pipe D, from which the air is supplied by communicating as aforesaid, to bellows or other blowing machinery; *e, e, e, e,* &c. are the small lateral pipes which communicate with the large air pipes, and proceed downwards through the fluid to be evaporated, to very near the bottom of the pan. The lower ends, *e, e,* &c. of these pipes are all very nearly equi-distant from each other, to produce the equal distribution of air before mentioned. Fig. 2, is a transverse section of the pan, A, A, A, A, Fig. 1, showing the great air pipe D, the cross pipe and its continuations B, B, B, in section, and the small descending pipes *e, e, e, e,* &c. as shown in the last figure, likewise the pipes *f, f, f, f,* which likewise descend from the pipes B, B, but in a more nearly vertical direction, which prevents their being seen in the view Fig. 1, but by means of which, the distances of the lower ends of these blowing tubes are brought to the same distance as under the pipes B, B, as in other parts of the pan. *g, g, g,* are legs to support the above described system of pipes, by standing on the bottom of the pan, and are of such length as will just prevent the lower ends of the said blowing pipes from touching it. The whole of this system of pipes is to be raised at once, as before mentioned, by any adequate machinery, in order to permit the scraping or cleaning plate, *h, h,* to pass under the ends of the before mentioned small blowing pipes. Fig. 3 is a longitudinal section of Fig. 1, of which a particular description will be unnecessary, as the same letters of reference denote the same parts in this and the other figures, the insertions of the small blowing pipes into the pipes B, B, being shown by black dots. In all these, Fig. 1 shows the situation near which the dis-

Fig. 1.

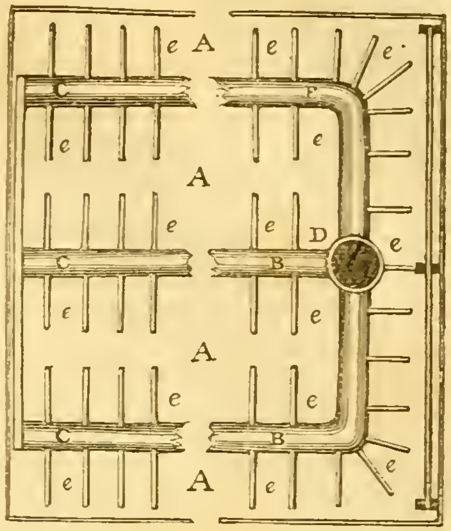


Fig. 2.

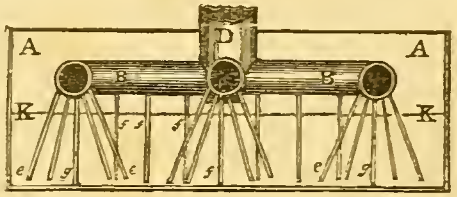
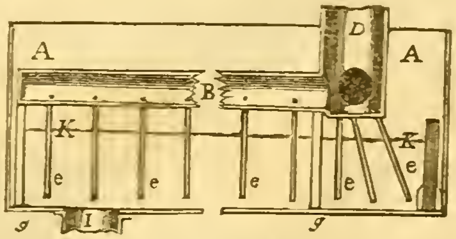


Fig. 3.



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* In the original drawing the boiler is represented as extending to about three times the length seen in Figs. 1 and 3, the middle being omitted, as it is merely a repetition of parts similar to those shown.

charging valve or orifice should be placed, and K, K, is the line near which the surface of the fluid should stand when first introduced to be evaporated. As before mentioned, the form of this apparatus may be varied; provided its essential properties of the air blowing through all the descending tubes, and this being so disposed as to produce greatly divided and equally distributed currents of air over the whole bottom of the vessel at once, are maintained, because my invention consists in producing rapid evaporation at lower temperatures than usual, by the means hereinbefore described.

OBS.—It is well known that a current of air promotes evaporation, and is in many instances employed for that purpose by being made to pass over the surface of liquids; the principle on which the foregoing patent is founded, consists in forcing air *through* liquids, and we are inclined to think it will prove more efficient, inasmuch as the air is not only brought into intimate contact with many, and constantly changing surfaces of the liquid, but also strongly and incessantly agitates it; the effect of such agitation is an increase of evaporation and decrease of temperature, which points are to be considered as advantages of importance in all cases where liquids are to be converted into vapour at a lower degree of heat than their boiling point, under the common pressure of the atmosphere.

It has been stated to us, that by Mr. Kneller's process the evaporation of water is more rapid at 180° of Farenheit, than by boiling at 212°, and is consequently attended with a considerable saving of fuel. The same object has been attained *in vacuo*, but the present apparatus, we readily admit, appears to have the advantage over that method, both in simplicity and cheapness, from its requiring fewer and less expensive vessels; in other respects the results must be similar, as the high temperature is avoided which injures the products by acting on the substances exposed to it, and favouring new combinations.

The refined sugar made by evaporating on this plan, has been represented to us as being equal, and in some respects superior to that evaporated *in vacuo*, as having the property of not being effected by a damp atmosphere; the former circumstance is so far in accordance with the theory, that a high temperature prevents the formation of large and shining crystals, and converts sugar into treacle or molasses; the permanency of the sugar in the open air may be accounted for by the crystallization taking place under an abundant supply of air, and not in the seclusion from the atmosphere.

The patentee, in a communication he has made to us, observes, that "the same invention if applied to distilling ardent spirits, raises them in a *clean* state, and the injection of air accelerates their passage through the condensing worm; the low temperature prevents in a great degree the production of empyreuma; the air forced down upon the bottom of the still keeps it cool, and the agitation supersedes the necessity of *rousing;* and as the wash is not suffered to be heated to the boiling point, it can never rise into the *head* and cause the spirit to *run foul*. The sugar house of Messrs. Widder & Co. Gravel Lane, Houndsditch, is fitted up and worked with this apparatus." [*Rep. Pat. Inven.*

(From the Geauga Gazette.)

LIVE FENCE.

Report of the Geauga County Agricultural Society.

The committee who were appointed on the 19th of May last, "to procure information respecting the best method of raising thorn or other thing for hedges,"

Report: That from the best information your committee has been able to obtain, it appears that the *cock spur thorn* is preferable to any other which may be readily obtained. To raise plants of the cock spur thorn suitable for hedging, requires much care and patience. The following plan has always been found successful, if *faithfully pursued*. Gather the haws in October when they are fully ripe; this is most easily done by spreading a sheet beneath the tree and beating the branches with a pole. The haws of this species of thorn separate from the stem very readily, and in this manner many bushels may be gathered in one day by two industrious persons. After the haws are gathered they may be exposed without care to the full effect of the weather in heaps of eight or ten bushels, or smaller if occasion requires, until the month of April, when they should be mingled with fine loam and made up into obtuse caves of eighteen inches or two feet in perpendicular height, and in order to expose the whole of the haws equally to the action of the heat and moisture, the heaps ought to be turned over and made up every month until the ensuing November.—Each time they are moved during the summer the outside of the heap ought to be covered over about an inch deep with earth to protect the haws from the direct action of the sun's rays, which would destroy them. As early in the following spring as it be possible to pulverize the ground finely, lay off the ground in beds about four feet wide, and cover over the surface thickly with the haws and earth, so that you can see the haw seed as thickly set upon the bed, as wheat upon thickly sown ground, and then cover them carefully with very fine earth, about half an inch deep.—Should the top of the bed become *baked, frequent light* waterings will be needed, because the seed leaf of the young plant is broad and the stem very tender and delicate, and should the ground be hard at the period of germination, thousands will perish without being able to break the crust. When they are fully up, they must be kept clear from weeds, by *hand* weeding. It is all important that the seed should be sown *very* early in the spring, after a second winter's preparation. Germination takes place with the first warm weather, and if the sowing should be neglected until the seed begin to sprout, all will be lost. Many total failures have occurred from this cause, after the most anxious and careful preparations of the haws. It has been suggested as the safer course, to sow the seed in beds, in November, to avoid the dangers of early germination in the spring, but your committee have no information that this experiment has ever been tried. It may be remarked that the haws of the cock spur thorn do not always grow well, and if a bushel of haws, measured when first collected, produce 3,000 plants, the person may consider himself very successful; but 5,000 plants have been raised from a bushel of haws. Instead of sowing the seed, after due preparation, in beds, and keeping them clear by hand, some persons sow them in drills, about 18 inches asunder, *very thick* in drills, and keep them clear with the hoe and hand. But whichever way is preferred, care must be taken to keep them *entirely clear* of *weeds*. They must have *sole possession* of the ground, or they will *all perish*. When they first come up, the neglect of a single week may destroy the whole crop, and bring all the previous labour to nought. As they advance in growth they become more hardy and better able to contend with other plants, but in their infancy they require the greatest care. The seed of the cock spur thorn never grows until the second summer. It has a stoney case, and the kernel is very small. The kernel does not appear to have power to burst its shell till the frosts of winter and the heat and moisture of summer have lessened its solidity; hence the necessity of the tedious preparation before described. The haws of the cock spur thorn have been successfully prepared for planting, by filling flour barrels, not tight, with them, and placing them at the north side of a house, under the drop of the eaves, keeping the top of the haws covered with leaves or straw, and letting them remain thus exposed until the second spring, then planting as before directed. During the summer, unless the rains be frequent, they require water to be thrown over them to keep them moist. Should they become dry, all will perish. In the middle states, as far north as Philadelphia, the species of thorn called the Virginia thorn, is much cultivated. It is a handsomer plant than the cock spur thorn, requires less trouble to rear the plants, grows rather more rapidly—makes a good fence, and is more easily kept in order after the hedge has attained maturity. It has, however, its disadvantages. The thorns growing upon it are not numerous, neither are they so long and strong as the cock spur thorn. It is also too much disposed to run up tall, without lateral branches; and after a hedge is fully formed, if trimming is neglected for two or three years, it will shoot up rapidly, the lateral branches near the ground will die, and the hedge become imperfect. But with careful annual trimming, an impenetrable fence can be made with it, and continued for a long time. The seeds of the Virginia thorn will grow, if *well prepared*, the spring after they are gathered. They ought to be gathered in October, when fully ripe. They must be gathered by *hand*, because they adhere so strongly to the stem, they cannot be detached by a pole without beating the tree to pieces. After they are gathered, it is usual to put them into a wooden mortar, and with a light wooden pestle to beat them until the seed is beaten out of the pulp, then throw them upon a coarse sieve and wash the pulp away. Put the seed thus cleared from the pulp into boxes, not tight, and expose them through the winter under the drop of the eaves of a house. Let the layer of seed in the box, not exceed six or eight inches in thickness, and cover the seed three inches deep with leaves. Sow them very early in the spring, in the manner recommended for the cock spur thorn. They germinate as early as the seed of the cock spur thorn, and the crop will be entirely lost, should they not be sown *very early* in the spring.

Plants of two years' growth are thought to be the best for setting out into the hedge, but well grown plants of one year old, will answer very well. Before setting out the thorn plants into the hedge row where they are to remain, the ground should be carefully prepared for their reception. It should be cultivated well the year before, so as to kill all grass and weeds; a row or two of potatoes are frequently grown upon the spot selected for the future hedge. It is necessary, however, to success, that all grass be *destroyed*. In the spring, as soon as the ground will work well, plough it thoroughly, and harrow it well. The plants when taken up for setting, should have all the side roots cut off with a sharp knife, and the main tap root shortened a little. They should be carefully assorted according to their size, planting all the largest plants together, and the weaker and smaller plants together, so that their future growth may be as equal as possible. After their roots are thus trimmed, they are best planted with a dibble, in the same manner as you would plant cabbages, along a line, and about eight inches asunder for a good close hedge. Great care must be taken, to press the earth *closely* to the root of the plant, throughout the *whole length of the root*. This is best done by thrusting the dibble down into the earth near the plant, and pressing the earth *very strongly* towards it. If this operation be well performed, a small piece of the top of the plant will break off without withdrawing the plant from the ground, or ever disturbing it in its situation. Planting may be continued with good success until the buds of the plants are nearly ready to burst into leaf, and if carefully done, the loss will not be three per cent. The hedge should not be placed so near to a fence that it cannot be well tilled on both sides. Much of the success depends yet upon a careful cultivation of the young hedge for three years after planting. Use the plough, the harrow and the hoe, frequently through the summer, so as to keep the plants as free from weeds, for three or four feet on each side of the row, as if it were a row of corn. Yet all this will not be sufficient to ensure success, unless the thorns, while young, be carefully protected from cattle, horses and sheep; all three are fond of browsing upon the tender succulent branches of the thorn, and will injure, and sometimes destroy them entirely, unless protected, till by age the thorns become sufficiently hard to protect themselves. Any vacancies happening by the death of the plants, should be carefully filled the spring after the first planting.

Such is the information which your committee have been able to obtain, and which they respectfully submit not only to the agricultural society, but also to the people of our county generally. To a superficial observer it may appear superfluous and even preposterous, in this new country to talk of hedges, but we trust we are addressing a body of enlightened and reasonable men, who are associated together not only to remedy known evils which already exist, but to prevent those which we have reason to apprehend in future. It may be said our country is oppressed with nothing so much as a superabundance of timber; we reply, a small share only of that timber is suitable for fences, and that not of the most durable kind. Our country affords no waste land, and must therefore at some time not far distant support a dense population, which precludes the idea of renovations for timber farther than is absolutely necessary. To forsee an evil is the first step towards prevention. That the want of fencing timber is an evil which requires a remedy cannot be doubted, and your committee trust it is one which will receive due attention from the energetic citizens of our county.

Seabeury Ford,
Lewis Hunt,
Edward Paine, Jun.

PROFITABLE COWS.

Dr. Samuel B. Woodward, of Weathersfield, took the first premium recently at the Hartford exhibition of cattle, for having produced two cows, yielding, in butter, milk, &c. the following result, from the Doctor's statement:—

In May, 110 lbs. 2oz.; June, 109 lbs. 11 oz.; July, 73 lbs.; August, 80 lbs. 8 oz.; September, 101 lbs. 8 oz.; October, 81lbs. 12oz.;—total, 576 lbs. 9 oz.

On the 1st of September, another cow was added, which, including what was made the last week in April, to wit, 21 lbs., would make 597 lbs. 9 oz. in six months.

Besides all this, milk and cream have been sold to the amount of $3, and a family of 16 persons furnished with milk and cream, worth at least $1 a week, at 4 cents a quart, and pork fed to the amount of at least $1. Not a pound of butter was sold for less than one shilling.

Butter,	$100
Milk, &c. sold,	3
Milk used in the family,	26
Pork,	15
	$144

The cows were fed on grass only, after the middle of May, before which time they had rowen hay and two quarts of meal a day. One cow is six years old, the other five years—one is half blood Devonshire, the other common stock.

The calves from the three cows sold in the spring for	$15 75
	144 00
Whole product,	$159 75

[See American Farmer vol. 11, p, 228, for other instances of great dairy produce.]

Cobbett's Corn is this year a complete failure, even worse in gardens than it was last year upon farms, none ripened in the fields; but in gardens in favorable situations some was saved which looked perfect, but when sown this spring, has not vegetated, to the full amount of three fourths of seed.—*Lond. paper.*

HORTICULTURE.

(From the N. Y. Commercial Advertiser.)

Important information to Silk Culturists, on the mode of making meadow, or silk worm pasture grounds, with mulberry seed.

Two years ago, a sufficient fund was tendered to the royal agriculture society of Lyons, by Monsieur *Math. Bonafous, of Piedmont,* and accepted, to be distributed in prizes of encouragement to any culturist of their department, who could furnish him with experimental results of the above plan that might be worthy of consideration and recommended to the public.

This celebrated contributor to agricultural improvements, is the author of many works especially intended for the promotion of the culture of silk in Italy and in France, and is in that capacity the first disciple of the *count Dandolo.* From his writings, the subscriber has taken copious extracts in his *practical instructions* in two small volumes, lately published in New York.

Mons. M. Bonafous affirms "That pasture grounds of mulberry for silk worms, are in existence in China, and that the same mode was introduced in one of the United States of America, the inhabitants of which pay particular attention to the culture of silk." To this we can bear evidence as we have read in the preceding volume of the *New England Journal* that this practice of providing for a ready crop of mulberry foliage was adopted by some farmers in Connecticut. Our correspondent adds, "that the young plants can be topped two or three times before the mounting and spinning of the silk worms, and that the stalks left might by due process, be prepared and employed for making that kind of paper in imitation of the China paper which is so much sought for by the engravers."

"But further experiments are desirable for the benefit of our culturists to know what modifications this rearing must command according to climate and other localities. Would the sowing be best early in the spring; or at the end of the summer, in drills, or broad casts? Will not the moisture of a foliage thus raised so near the ground produce a worse quality of silk; and would it be sufficient or expedient to subject the fodder to some kind of drying process?" Be it as it may, the advantages of a mulberry pasture ground are so important that they cannot fail inviting great attention and experiments to the friends of this interesting culture.

1. To those who have not yet any tree at their disposal, and are discouraged by the tedious prospect of three or four years' labour to form an orchard; to others who are temporary tenants only of the ground they cultivate, this method would afford the means of an immediate crop.

2. It could always be effected on a smaller extent of soil than mulberry orchards or hedges must require.

3. It would impose no labor, no expense, and very little time for the *mowing* of the foliage.

4. The two objects of care, of cultivation and of nursery, with very little difference of time, would be simultaneous, less expensive and more profitable.

Finally, the benefit of silk culture would be more extended to the poorer class of people, and become more effectually a general blessing for the community.

With these correct views and important observations, Mons. Bonafous invites the agriculturists of North America, to whom he gives the merit of having already, like the Chinese, established the mode of cultivating the mulberry in *pasture ground,* to furnish him also with the results of their experimental observations, in return of which he has transmitted, through the subscriber, a collection of all his works, to the *American institute,* and professes, by all means in his power, to communicate and partake with them all possible advantages of that cultivation which to this day is the support of the poorest classes of Chinese, Italian and French population. No trouble in our part for promoting the *Royal Director of the King of Sardinia's garden,* will be spared, since he has confidently and candidly approved of our mode of raising silk worms with the aid of electricity and their mounting on double rattan slides, as represented in our second volume of the *Practical Instructions,* instead of brush wood.

N. B. A quantity of the best French mulberry seed, may be obtained at No. 71 Liberty street; and the *Chinese mulberry tree* is propagated at Mr. Andrew Parmentier's, Brooklyn; at Mr. Michael Floy's and Mr. Keaney's in New York. The importer has also placed a young tree of the same at Hyde Park, New York, one of the finest horticultural establishments in the state, belonging to Dr. David Hosack.

Felix Pascalis.

The country editors of Newspapers are respectfully requested to circulate the above notice, and any communication (post paid) directed to Dr. Felix Pascalis, 71 Liberty street, New York will be attended to.

[*Remarks on the above.* The editor of the American Farmer, after a fair trial of the plan of pasture or mulberry meadow for silk works, does not consider it practicable. If the seed are sown in the spring, they are so tardy in vegetating, that their leaves cannot be availed of the same season; they will not be six inches high at the close of the season for feeding worms. If sown in the fall, the plan is equally impracticable; for at whatever season the mulberry is planted, it must be kept entirely free of weeds, for its growth during the first four months is so exceedingly slow that grass and weeds will inevitably smother it. The editor has for five successive years planted mulberry seed, and the two first years on the plan above described, on an acre of ground, and did not succeed in saving a single plant in consequence of the field being overrun with weeds, which it was impossible to destroy without destroying the young mulberry plants also.]

(From Prince's Pomological Magazine.)

PEACHES.

(Continued from page 300.)

Early Yellow Alberge. *Pr. cat.*

This peach is distinguished from the preceding, by its being much smaller in size, and ripening at a much earlier period, but its flowers and leaves do not differ; it is sixteen lines in diameter, and seventeen in height, divided by a shallow longitudinal groove, and terminated by a large pointed and curved mamelon; the skin, which is covered with thick down, is yellow on the side that is shaded, and coloured with dark red on the side exposed to the sun; the flesh is melting, of a fine golden yellow colour, tinged with red around the stone, and of a sweet flavour; the stone is brownish red, terminating in an obtuse point, and about seven lines long and six broad. In early seasons this fruit is in eating at the end of July, and in ordinary years towards the middle of August. I have no doubt the title adopted and the synonymes apply to the same fruit, and I have been guided by my own judgment in their arrangement.

Madeleine De Courson. *Pom. Mag. Pr. cat.*
Lel. Pom. Franc, p. 292. G. Lind in Hort. trans. vol. v. p. 539. Hort. Soc. fruit. cat. No. 84.
Red Magdalen of Courson. Pr. cat. 25 ed.
Madeleine Rouge, or *Madeleine de Courson.* Dub. Nois. Jard. Bon Jard. 1828.
Magdeline rouge de Courson, of French writers and catalogues.
Paysanne, } of the French.
Rouge Paysanne, }
Red Magdalen. Miller's Dict. ed. 8.

An excellent freestone variety, ripening in the end of August or beginning of September, about the time of the Grosse Mignonne. It is very different from the Red Magdalen peach of the (English) nurseries, which is a larger fruit, with more colour, and small flowers. The tree is rather subject to mildew. According to Mr. Lindley, this is the true Red Magdalen peach of Miller. It is remarkable for its fine, rich, vinous flavour.

Leaves dark green, coarsely and doubly serrated, glandless, flowers large, pale blush; fruit small, globular, flattened, deeply cleft on one side; colour pale yellow, with a blush of clear pink where exposed; flesh quite white, not stained at the stone, from which it parts freely—very melting, juicy, vinous, and rich; stone blunt, rather large for so small a fruit.—*Pom. Mag.*

Late Red Magdalen. *Auth.*

Duhamel designates this fruit as a variety of the Red Magdalen, of which many seminal varieties exist, partially varying in the several points of distinction, and all producing good fruit. The present one is distinguished by its small flowers, the fruit is of medium size, and highly coloured, the cavity in which the peduncle is inserted is generally surrounded by several pretty distinct furrows; the flesh is of very good flavour, and it ripens at the end of October. It would seem that the Pomological Magazine intends to quote this as a synonyme of the Royal George, but omits the word "*tardive*," and without having any reason to doubt the fact of synonomy I here insert the remarks of Duhamel, leaving the subject to be fully investigated hereafter.

White Magdalen. *Pr. cat. Duh. Roz.*

The flowers of this tree are of a delicate red colour, fourteen to fifteen lines in breadth, and the leaves are devoid of glands; the fruit is twenty-three to twenty-four lines in height, twenty-five to twenty-seven in its greatest diameter, and covered with a velvety skin, which is whitish over nearly the whole of its surface, and only speckled with red dots on the side exposed to the sun; the longitudinal groove that divides the fruit, is partially apparent on one of its sides, and becomes more distinct at the summit, and that section also presents a very small point, being the remains of the style, which does not form a very perfect mamelon; the flesh is white, melting, succulent, delicate, abounding in sweet juice, of a rich and musky taste; the stone is small according to the original Duhamel, but it is stated in the New Duhamel that it has, on the contrary, been often found large in proportion to the size of the fruit, it being in many cases fourteen lines long, and eleven and a half in its greatest diameter, with the section towards the point very much swollen, whereas the base is much more narrow. This peach ripens from the fifteenth of August to the end of that month.

Small White Magdalen. *Auth.*

This variety only differs from the preceding one in respect to the dimensions of the fruit, which in the present case is of less size, and by being hollowed at the summit, where there is a very visible cavity, and in the colour of the skin, which is of a still whiter appearance.

Grosse Mignonne. *Pr. cat. Pom. Mag. Duh.*

The excellence of this variety will account for the number of different names under which it is cultivated. Some of these have previously been determined as synonymous; a few are now so considered for the first time. It is not improbable that the *Marlborough*, *Ronald's Early Galande*, *Padley's Early Purple*, and the *Swiss Mignonne*, will be hereafter added to the list; if not the same as the Grosse Mignonne, they differ from it so little as not to be worth cultivating in the same gardens as distinct varieties. The *Vineuse de Fromentin* of the French differs only in being somewhat larger, rather longer, and not so much hollowed on the summit.

A beautiful, melting, delicious variety, ripening in the beginning of September. One of the finest peaches in cultivation.

Leaves crenated, with globose glands; flowers large, dark purplish-red; fruit large, depressed, and hollowed at the summit, with a moderately deep suture on one side, and a wide cavity at the base—the side marked by the suture is shorter than the opposite one; skin rather thinly clad with down; colour rich deep red next the sun, thickly mottled on a yellow ground towards the shade; flesh pale yellow, rayed with red next the stone, from which it parts freely, melting, juicy, with a rich vinous flavour; stone small for the size of the fruit, ovate, very rugged.—*Pom. Mag.*

Late Mignonne. *Auth.*

This peach greatly resembles the Grosse Mignonne, the tree like that variety, produces large flowers of a delicate rose colour, and seventeen to eighteen lines in diameter; the essential distinction is in the glands of the leaves, which are reniform, instead of being globular, and in the fruit, which is not sensibly hollowed at the summit, but is terminated by a very distinct nipple or mamelon, although it is very small; the fruit is of fine size, and measures twenty-six to thirty lines in its greatest diameter, and twenty five to twenty-eight in height; the flesh is white, somewhat coloured with red around the stone, very melting, replete with juice of a sweet, rich, and vinous flavour, and as pleasant as that of the Grosse Mignonne; the stone detaches itself pretty easily from the flesh, and is of a reddish brown colour, fourteen lines or a little more in length, and nine in its greatest diameter. This is an excellent fruit, ripening in the earliest part of September, and sometimes at the end of August in an early season, but always eight to ten days after the Grosse Mignonne. It is cultivated in the Jardin des Plantes at Paris.

Round Transparent. *Pr. cat.*

This tree produces flowers of a beautiful rose colour, about fourteen lines in diameter, and its leaves are furnished with reniform glands. This last character forms its especial distinction from the Grosse Mignonne, as the fruit differs but little from that variety, except in point of size—it being only twenty-two to twenty-three lines in height, by two inches at most in diameter; its form, colour, and flavour do not present on their part any essential differences; the stone is more oblong in proportion to the size of the fruit, measuring thirteen to fourteen lines in length, with a peculiar point, ordinarily very projecting, and is nine to ten lines in its greatest diameter, and very perceptibly contracted towards its base. This peach is cultivated in the Jardin des Plantes at Paris, and ripens at the end of August, or beginning of September. I introduced it to this country from the South of France, about six or seven years since.

English Chancellor. *Pr. cat.*

This peach, which is by no means uncommon, is said to be distinct from the fruit of the same name in the French gardens which is described by Duhamel as having large flowers. In all other respects, however, the two seem to be much alike. It is generally considered, that the English Chancellor peach is the variety alluded to by Duhamel in describing the true kind. In the Jardin Fruitier the true Chancellor is stated to resemble the Chevreuse native, which this does also, except in being later. It is earlier than the late Chevreuse; and, except those two, there is no peach in the section to which it belongs that it is like. The middle of September is the usual time of ripening.

Leaves crenated, with reniform glands; flowers small, reddish; fruit large, oval, with a very distinct channel on one side; cavity at the footstalk rather small; skin not very downy, dark crimson next the sun, pale yellow next the wall, finely mottled towards the union of the two colours—it peels freely; flesh pale yellow, very deep red from the stone half-way through, melting, very juicy and rich, with a vinous flavour—it parts freely from the stone, but leaves some fibres behind; stone oblong, tapering to the base, pointed at summit, with a surface almost like that of a clingstone. A capital sort.

The *French Chancellor* of the nurseries, and of the London Horticultural Society's Fruit Catalogue, No. 41, is probably not distinct from this. The name appears to have originated in a nursery in the North of England.—*Pom. Mag.*

French Chancellor. *Pr. cat.*

This variety has large flowers; the fruit is twenty-two lines in height, and twenty-four in diameter—it is divided into two unequal sections by a longitudinal furrow, which is deepest at its base; and it is terminated by a very small mamelon; the skin is a fine red next the sun; the flesh is melting, sweet, and of very pleasant flavour. This peach is at maturity the beginning of September.

Early Purple. *Pr. cat.*

The flowers of this tree are large and bright red; the fruit is twenty-five to twenty-seven lines in diameter, and twenty-three to twenty-four in height—it is divided on one side lengthwise, by a broad and rather deep channel, which terminates in a considerable cavity at the summit; the skin is a fine dark red next the sun, and speckled on the opposite side with very small bright red dots, in such a manner that when they are very close to each other, it appears to be entirely of a red colour; it is also wholly covered with a fine thick down, and readily separates from the flesh; the latter is white, except around the stone, where there are some red veins—it is very melting, and abounds in juice of an excellent flavour; the stone is brownish red, and does not adhere to the flesh. This peach ripens early, being commonly eaten during the first part of August, and is esteemed a very good fruit.

Vinous Purple. *Pr. cat.*

This tree also has large flowers, of a bright red colour; the fruit is of fine size, divided on one side into two sections by a rather deep groove; the skin is thin, and separates readily from the flesh—it is covered with a very fine fawn coloured down, and its whole surface is a very dark red, including even those parts which are not exposed to the sun; the flesh is succulent, with a profusion of juice of a vinous taste, accompanied in some cases with a slightly acid flavour; the colour is white, except under the skin and around the stone, where it becomes very red; the stone is brownish red, and detaches itself easily from the flesh. This peach has considerable affinity to the Grosse Mignonne, but is distinguished by the colour of its skin and flesh.

Late Purple. *Pr. cat.*

Pourprée tardive. Duh. Roz.

This fine freestone peach has flowers of medium size, of a rose colour, and ten to eleven lines in breadth; the fruit is one of the most beautiful of its class, and often measures thirty-one to thirty-two lines in its greatest diameter, by twenty-seven to twenty-eight in height; the longitudinal groove which divides it on one of its sides is not very distinct, and it extends beyond the summit, which is terminated by a small nipple, the skin, which is covered with fine down, and separates easily from the flesh, is whitish on the shaded side, and reddish next the sun, where the red colour is frequently distributed in lines or stripes; the flesh is white, except around the stone, where it becomes somewhat red—it is melting, very succulent, abounding in juice of a sweet, perfumed, vinous, and excellent flavour; the stone, which separates pretty readily from the flesh, is subject to split—it measures fifteen to sixteen lines in length, and eleven to twelve in breadth, and is most swollen towards the point, and narrowest at the base. This peach is considered an excellent fruit, and ripens at the end of September or beginning of October. In my importations of fruit made from England, some years since, they sent me from one of the first establishments in that country for this variety, a late purple peach with a smooth skin, considerably resembling a nectarine, which beyond doubt must be one of the choice French Violet peaches, and I expect to be able soon to identify it with its proper title.

Malta. *Pr. cat. Pom. Mag. Mil. For.*

The following description of this fine freestone peach I extract from the Pomological Magazine.

"One of the very best of the melting peaches, ripening about the end of August. It bears carriage remarkably well, and will keep longer when gathered than any other peach, except the clingstones. From its reputed capability of bearing as a standard, it would be probably found to ripen on an east or west wall.

"Leaves doubly serrated, rather larger than usual, without glands; flowers large, pale; fruit middle-sized, generally depressed at the apex, with a broad shallow suture on one side, and slight traces of one on the other; colour on the shaded side pale dull green, next the sun broadly marbled with broken blotches of dull purplish red; flesh greenish yellow, with a slight stain or purple next the stone, from which it parts freely, very rich and juicy, with an extremely agreeable vinous flavour; stone middle-sized, oval, pointed, rather rugged.

"The sort cultivated in Normandy was a short time since supposed to be a variety distinct from the Pêch de Malte of Duhamel; but from plants grown in the garden of the Horticultural Society last summer, the two are now judged to be the same.

"Upon the authority of Miller, the Italian is said to be a kind nearly the same as this."

MANITA TREE.

The Manita Tree, so named from the resemblance of its flower to a little hand, (manita) is a species of plant almost unknown in the catalogue of botanists. It is sometimes supposed that only three specimens are in existence; two in the small botanical garden at the palace of the city of Mexico, and one at the town of Toluca. It is certain nobody in Mexico can tell whence they originally came, or where they may be found growing in a wild state; but as they were preserved with many other foreign productions by the emperor Montezuma, it is imagined either himself or ancestors must have obtained them from the interior of South America. The tree is about forty feet high, with a smooth trunk, without branches almost to the top; but the boughs then stretch over a considerable distance, with large leaves and numerous flowers hanging downwards from amongst the foliage. It bears a stronger resemblance to the plane or the tulip tree than any other we are acquainted with in Britain. Two of this species were found by the Spaniards at the time of their conquest, and form a solitary exception to the devastation of those adventurers; most probably because Cortez occupied the site of the palace for his own residence, and therefore coveted the shade of its garden; the smaller plant now growing at Mexico is considered to have been a sucker from the other.—Tradition states, that though the Indians did not actually worship the manita tree, yet they regarded the flower with a sort of religious veneration.—*Mexican Illustrations.*

The Reading Journal says—"November 12,—We this day discovered a *ripe Cherry* on a tree in our yard, known by the name of May-duke. The curious are invited to call and see. Is this not a phenomenon?"

INTERNAL IMPROVEMENT.

CHESAPEAKE AND OHIO CANAL.

At the adjourned meeting of the Stockholders of the Chesapeake and Ohio Canal Company, on the 26th Nov. a sufficient number of Stockholders did not attend for the transaction of business; but the President laid upon the table the following supplementary Report, from the President and Directors of the Company, and which it was understood might be published:

TO THE STOCKHOLDERS
Of the Chesapeake and Ohio Canal Company.

The unexpected lapse of nearly half a year since the last annual report of the Board, prompts, if it does not make it the duty of the President and Directors, to apprise this general meeting, that, in the long interval since its last adjournment, the various works on the canal, not obstructed by a season of unusual ill health have been conducted, with all the vigor which the unremitted attention of the engineers and officers of the Company could inspire.

Those below the old locks, are now rapidly advancing to a conclusion. The tide-lock connecting the Rock creek basin with the river Potomac, and through that with the Chesapeake bay, will have its masonry completed in a few days; and the intervening sections of the canal between it and the Little Falls feeder will be finished, it is confidently believed, very early in the ensuing year, so as to be open for navigation as soon as the frost of the approaching winter will admit.

Within the last week many boats have passed through the twenty locks, next above this feeder. Indications of instability in the lofty perpendicular walls of the canal near the Great Falls, and two breaches through that of the 15th section, required precautions and repairs, which suspended, for a time, the use of the portion of the new canal between the Seneca feeder and the Little falls; while the difficulty of access to the works, requiring renewed labor, has protracted the necessary operations upon them.

The failure of a part of the foundation of a small culvert of four feet breadth, of a few yards of the tow-path along Bear island, through which the late rains have broken into the canal: the breaches already mentioned on the 15th section, and two others on the 29th and 4th sections, requiring a day or two each only to repair them, are all the accidents which have attended the admission and continuance of the water, for several months past, in the seventeen miles of canal, comprehending many very high embankments, twenty locks, and eighteen culverts, between the feeders above-mentioned. The use of the new locks has clearly developed the important benefit resulting from the extension of their lateral culverts, as far forward as the middle of the lock, and the addition of two inlets to the four usually provided for the admission of water from the head into the chamber of the lock. It is now ascertained that the greatest detention in passing from one level to another, through any lock, will not exceed three minutes; that this may easily be reduced to two minutes and a half, and it is confidently hoped to two minutes only, or one-fourth of the time usually allowed for passing a lock of eight feet lift.

The hazard of bringing into practical use, with a full head of water, a new canal, of so large a cross section as 306 feet, has prevented any attempt to increase the velocity or the tonnage of the canal boats to their maximum speed or burthen, with any given power of horses.

The very low stage of the water of the river Potomac, and the occupations of one harvest, followed by the sowing of grain, preparatory to another, have prevented any very sensible loss to the public, from the past delay of the use of the new works, below Seneca; and the navigation thence, down to the old locks, may now be considered as permanently opened.

The further prosecution of the dam at the head of the Seneca Falls, a work which can be continued only at low water, and which is now nearly completed, indicates its great utility in supplying for navigation, a sheet of water of almost unbroken surface of more than twenty-five miles, or to the proximity of the Kitoctan mountain; calculated, if assisted by individual enterprise, to open a water communication, by steam-boat with the new canal, below Seneca, and the rich country above, in the vicinity of Leesburg, in Virginia, and Frederick, in Maryland.

After an unlooked for delay in constructing the large aqueduct across the Monocacy, it is now placed in hands by which, it is believed, it will be vigorously and successfully conducted.—This work, like all similar works upon the shores of the Potomac, below the mountains, encounters peculiar difficulties, in the months of August and September, which very mild autumns, like the present, tend to protract.

Except this aqueduct, exposed also to the freshets of two rivers, there remain, no work, above Seneca, which a few months' labor would not complete. That at Seneca, consisting of two locks, and an aqueduct of three arches, across that creek, at its mouth, will be completed, very early in the ensuing spring; and the larger aqueduct of the Monocacy, it is believed, by the following winter.

The prosecution of the canal above the Point of Rocks continues, as before, impeded by the injunction issued by the Chancellor of Maryland, at the instance of the Baltimore and Ohio Rail-road Company. In prosecuting the efforts of this company to bring that controversy to issue, for a part of the obstructed way by compromise, and for the whole, by legal adjudication, the correspondence, herewith communicated, has occurred between this Board, and the president and directors of the former. To this correspondence, we deem it our duty to invite your attention: while we subjoin the opinion of one of the commissioners appointed by the Chancellor, as to the expediency of the proposed compromise, in order that the causes which have led to its failure may be justly estimated.

The Board feel it to be due to themselves, to state, that the proposition submitted to them, by the president of the Baltimore and Ohio Rail-road Company, to compromise, as far as Harper's ferry the controversy subsisting between the two companies, was associated, neither in the original communication of it to this board, by its president, nor in the subsequent explanation of it to one of the directors, with the condition, now annexed to it by the president and directors of the Baltimore and Ohio Rail-road Company. On the contrary, that director informed this Board, that the president of this Company had, in the opinion of the president of the Baltimore and Ohio Rail-road Company, misconceived his proposal, which did not extend to a compromise, as far as Williamsport, but to Harper's ferry only.

A plan of feeding the new canal when it shall have been completed from the Point of Rocks to Seneca, by which, also, still water navigation would be extended to Harper's ferry, has been submitted to the examination of the engineers of the Company; and, should it be approved by them, will be executed, it is hoped, in time to render this important link in the chain of water communication with Cumberland, available by the time the Monocacy aqueduct shall have been completed.

Since the commencement of the present general meeting, a reduction has been made of the number of engineers in the Company's service, proportioned to the reduced extent of the remaining works under contract. The five residencies, into which the entire canal below the Point of Rocks, had been, of first, distributed, have been reduced to two: the services of an engineer of division, acting as engineer in chief, has been dispensed with, and a superintendent appointed, of the entire canal in use, with a view, chiefly, to such repairs thereof, as experience have demonstrated, that all new canals require before time shall have tested their weak points, and imparted solidity to their embankments.—These reductions have brought down the expense of the corps of engineers to less than a moiety of its original extent. A measure of economy, however, occasioned by the legal obstructions to the progress of the canal above the Point of Rocks, and attended with the further cause of regret, that it has separated from the president and directors many experienced officers who deservedly possessed their entire confidence.

Signed, in behalf and by order of the president and directors, C. F. Mercer,
President of the C. and O. Canal Co.

LADIES' DEPARTMENT.

(From the Journal of Health.)

SUGAR.—PRESERVES.

"He," says honest old Slare, the physician, "that undertakes to argue against sweets in general, takes upon him a very difficult task; for nature seems to have recommended this taste to all sorts of creatures." This, as a general proposition, is undoubtedly true, and yet we find that there are writers, of no mean eminence, who condemn in the strongest terms, the use of sugar, as injurious to the stomach, destructive to the teeth, or otherwise pernicious to the health of the system. How such an opinion should ever have originated, it is very difficult to say. So far from any bad effects being produced by the free use of sugar, at least under the ordinary circumstances of health, it is shown, by the most conclusive evidence, to be a highly nutritious and useful article of diet.

So palatable, salutary, and nourishing, is the juice of the sugar cane, says Bryan Edwards, in his history of the West Indies, that every individual of the animal creation, drinking freely of it during crop time, derives health and vigor from its use. The meagre and sickly among the negroes exhibit a surprising alteration, in a few weeks after the sugar mill is set in motion. The labouring horses, oxen, and mules, though almost constantly at work during this season, yet, being indulged with plenty of the green top of this noble plant, and some of the scummings from the boiling house, improve more than at any other period of the year.

It is, in fact to the sugar they contain, that a long list of fruits and other vegetable productions, which constitute so large a portion of the food of man and the inferior animals, owe their nutritious properties. The date which contains a great amount of sugar, forms almost the daily sustenance of a large number of the inhabitants of the east; and the fig, a fruit of the same character, was anciently, we are told, the chief food of the Athletæ or public wrestlers.

From these and other facts, we may infer, that sugar forms a very proper addition to our food. Whether pure sugar, however, can be eaten by itself, in any quantity, with perfect safety, is somewhat doubtful. To insure its ready digestion, and in that manner prevent its turning sour on the stomach, it would appear to be necessary, that it should be combined with other alimentary substances. It is in combination with mucilage and other vegetable matters, that it is met with in the juice of the cane and those fruits which the experience of mankind has shown to be the most nutritious. Hence, as a general rule, sugar should be made use of rather as an addition to less palatable articles of diet than as the principal food. We do not say, that life cannot be sustained upon sugar alone; for we know that in their journeys through the desert, whole caravans have subsisted upon it for many days. And in St. Domingo, at a time when commerce was suspended from the want of ships, sugar was substituted, during many months, for the ordinary food of the cattle, and they were found to fatten on it.* It is, however, a curious but well established fact, that substances which contain like sugar, a large amount of highly nutritious matter, in a small bulk, do not agree so well with the stomach, nor are so readily digested, as those in which the nutritive principle is diffused through a larger mass of aliment.

With a few individuals, sweets of all kinds produce nausea or uneasy sensations in the stomach—it is needless to say, that in such cases sugar should be refrained from; or used only in very minute quantities.

With dyspeptics, generally, sugar is very apt to disagree. Dr. Philips informs us that he has known several who were obliged to abstain even from the small quantity used in tea.

Preserves are merely different kinds of fruit boiled to a certain extent in sugar or molasses. The same remarks, very nearly, will, therefore, apply to them as to the latter. When eaten in moderation, with milk or bread, they form an innocent, if not advantageous addition to our meals, provided, however, they are prepared of fruit tolerably ripe, and not too acid. We are now speaking of the ordinary domestic preserves. In reference to the entire class it will be proper to observe, that when formed from vegetables, very tough, of a woody fibre, or otherwise of an indigestible nature, they invariably disturb the stomach, notwithstanding the sugar with which they are combined.

The great, perhaps the only objection to the use of preserves in general, during a state of health, is, that they are generally eaten with the desert, after partaking of a hearty dinner, or at the close of a substantial supper. Under such circumstances, they almost invariably impede digestion, and by running into fermentation in the stomach, produce heartburn, cholic, and other uneasy sensations. They are very apt, also, to produce the same effects, when partaken of late in the evening, or just before retiring to rest.

Similar cautions should be observed in regard to the vessels in which preserves are kept, as were laid down when we spoke of pickles. A few years since, a number of the inhabitants of Lancaster county, in this state, were attacked with an extremely painful affection, the cause of which was traced to the use of apple butter, (a species of preserves,) which had been kept in earthen vessels, glazed, as is usual, with lead.

MISCELLANEOUS.

TEMPERANCE.

The following anecdote may have been in print five hundred times before, but we never saw it "in all our vast reading," and we think it might be read occasionally by some of our dyspeptics, who actually drink and eat themselves into dyspepsia.

A wealthy manufacturer from the west of Scotland, while at Edinburgh on business called upon Dr. Gregory for his advice. He was a man of middle stature rather corpulent, with a rosy complexion and whose exterior altogether bespoke the comfortable liver. After seating himself the following dialogue ensued:—

Gentleman.—Well, Dr. Gregory, I ha' come up to Edinbro, in the way of business, and I just thought I would take your advice about my health.

Doctor.—Your health, sir? What's the matter of you?

Gent. I'm no just sae wheel i' the stomach as I'd like to be.

Dr. The stomach! I suppose you are a drunkard or a glutton then, sir.

Gent. Na, na, Dr. Gregory, ye canna say that; ye maun ken that I'm a sober man, and a temperate man, and a deacon of the kirk, as my worthy father was afore me.

Dr. Well, let us see: what do you eat and drink? what do you take for breakfast?

Gent. I take coffee or tea wi' toast, and a fresh egg or a bit o'salmon, though I have no much appetite for my breakfast.

Dr. Yes; and then you take something by way of lunch between breakfast and dinner?

Gent. I canna say I care ower much about the lunch? but can take a bit o'bread and cheese and a glass o'ale if it be there, but I canna say I care ower much about it.

Dr. Well, what do you eat for dinner?

Gent. O! I'm no very particular, though I maun say I like my dinner.

Dr. I suppose you take soup first?

Gent. Yes, I can say I like my soup.

Dr. And a glass of porter or brandy and water with it?

Gent. Yes, I like a glass of something wi' my soup.

Dr. And then you have fish or beef and mutton, with vegetables?

Gent. Yes.

Dr. And a glass of ale or porter with them?

Gent. Yes, I take a glass o'ale now and then wi' my meat.

Dr. And then you have boiled fowl and bacon, or something of that sort, I suppose?

Gent. Yes, I maun say I like a bit of fowl and bacon, now and then.

Dr. And a glass of something with them.

Gent. Yes,

Dr. And after the fowl you have pudding?

Gent. I'm naye fond o' the pudding, but I can take a bit, if it be there.

Dr. And you must drink wine with your pudding?

Gent. I canna take owermuch o' the wine, but if I have a friend wi'me, I take a glass or so.

Dr. And then you have cheese or nuts?

Gent. Yes—the gude wife is ower fond o' them, I canna say I care about them.

Dr. But you take a glass of wine or two with your nuts?

Gent. Yes, a glass or two.

Dr. Well, you do not finish your dinner without whiskey punch?

Gent. I find my dinner sits better on my stomach with a little punch, as I take a glass or so.

Dr. And have tea, I suppose?

Gent. Yes, I maun take my tea wi' the gude wife.

Dr. And a bit of something with it?

Gent. Yes, I can take a bit o' something, if it be there.

Dr. But you do not go to bed without supper?

Gent. Na, na, Dr. Gregory, I canna say I like to gang to bed without my wae bit o' supper.

Dr. And what do you eat for supper?

Gent. O! a bit o' any little thing—bit o' salmon, or boiled tongue, or cold fowl.

Dr. And a glass of something with it?

Gent. Yes.

Dr. And can you go to bed without a night cap of hot punch?

Gent. I maun say I sleep the better for a glass o' hot punch, though I canna say I'm ower fond o' the habit.

Dr. Well, sir, you are a fine fellow; you are, indeed, a fine fellow. You come to me with a lie in your mouth, and tell me you are a sober man, and a temperate man, and a deacon of the kirk as your father was before you; and you make yourself out, by your own statement to be a glutton, and a wine bibber, and a whiskey tippler and a beer swiller, and a drinker of that abominable of all compositions, called punch. Go home, sir, and reform yourself, and become temperate in your eating and drinking, and you will have no need of my advice.

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* We know that this is at variance with the experiments of Magendie, in which he gave sugar to dogs, and found them pine away under its use. But we must bear it in mind that these were *carniverous* animals.

ECONOMICAL LAMP.

In the absence of lamp oil, you will find that hogs-lard, which is always at hand, will serve as a *make shift*, if you insert a piece of knitting needle along side of the wick, that shall extend from the bottom of the lamp to the flame. The heat of the wire will preserve the fluidity of the lard.

Cousin Tabitha.

AIR.

It is said to be 840 times lighter than water, but from the height of the atmosphere, its gravity is so great, that it invests the earth with all the bodies thereon, so much as to constringe and bind them down, with a force equal to 15 lbs. weight to an inch. Hence it prevents the vessels of animals and plants from being too much distended by the impetus of the circulating blood and juices. A lighted candle destroys the vivifying quality of a gallon of air in a minute, and without a fresh supply it will go out. The atmosphere is a transparent, invisible, elastic, impalpable fluid, encompassing the earth on all sides, to an extent, it is supposed, of 50 miles, or more, and is composed of a combination of oxygen and azotic gasses, about 78 parts of the latter with 28 of the former, making a hundred parts of atmospheric air, which is combined with small portions of hydrogen and carbonic acid gass.

FREEZING OF WATER.

The expansion of water in freezing has often split rocks and trees. According to some calculations, a spherule of water 1 inch in diameter, expands in freezing with a force equal to the resistance of 13½ tons weight. Fresh water freezes at 32 deg. salt water at 28 Fahren.

An animal might be frozen to death in the heat of summer, when exposed to the rays of the sun, or in the shade, by repeatedly sprinkling ether upon it. Its evaporation would soon carry off the vital heat and produce death. Water thrown on hot iron, acts in the same way; it becomes instantaneously converted into vapor, and this deprives the iron of a great portion of the caloric it contains. We cannot increase the heat of boiling water, for when it reaches that point, the vapor or steam absorbs the heat, and carries it off as fast as it is generated. Substances usually become more dense by the loss of caloric, but the freezing of water is a striking exception to this law of nature, showing the provident care of the Almighty, when he established the laws of matter.

ICE BOXES

Made with strong double casing at the sides and bottom, leaving an opening of three quarters of an inch in width, all the way round, to be filled with powdered charcoal, rammed in tight, the bottom sloping, so as to let the water run off through a small aperture, and the top made very tight, to shut down close, with an intermediate or middle shelf, is a great preserver of ice and provisions.

ITCHING FEET.

Among the minor evils to which the human frame is subject there are few more tormenting than that of violent itching of the feet, during severe frosty weather, caused by incipient chilblains. The following specific is so simple and cheap, that no person ought to be ignorant of it; it is merely one part of muriatic acid mingled with seven parts of water, with which the feet must be well-rubbed for a night or two, before going to bed, and perfect relief will be experienced. The application must of course be made before the skin breaks, and it will be found not only to allay the itching, but prevent the father progress of the chilblains. The feet may be a little tender for a short time, but this slight inconvenience will soon disappear.

THE FARMER.

Baltimore, Friday, Dec. 10, 1830.

☞ Our Patrons, who are in arrears for subscription to the American Farmer, are respectfully but earnestly requested to remit the amount due by mail, which they are authorized to do at the risk of the publishers. The expenses of the establishment are very great, and of daily recurrence, and the season of the year is at hand which requires more—and without prompt payment on the part of subscribers, it is impossible for us to meet them. At no period since the commencement of the Farmer, have the payments of the year been so backward as at present. The payment of postage, required of subscribers by our terms lately, has, we suspect, caused much of this delay; if so, we beg such subscribers to let this cause operate no longer, but to remit the amount due at *our* cost. But we feel assured, that if gentlemen would bestow a moment's consideration upon the subject, they would see the propriety of paying postage even on remittances of money. To them it is an inconsiderable sum—fifty cents at most annually; to the publishers it amounts to the appalling aggregate of one tenth part of the gross receipts of the establishment. It will require the whole subscription money of one hundred subscribers to pay the postage on the subscription of 1000. Nevertheless, necessity compels us to make even this great sacrifice; in cases where gentlemen insist upon it.

Another subject that bears heavily upon us, is the payment of discount on bank notes, sent us for subscription. It not unfrequently happens, that the discount and postage on a five dollar bill, sent us in this way amount to one dollar. We do not intend to *insist* upon any other being sent us than that which is the current money of the subscribers' place of residence; but as there are branches of the U. S. Bank in all the states, and the bills of that bank are in general circulation, we request as a favor, that these bills, or some others, current in Baltimore, be sent us, when it can be done without too much inconvenience.

Culture of Silk in the United States.

There can no longer remain a doubt of the practicability of making silk a principal staple production of this country. The experiment has been tried to an extent sufficient to settle the question as to practicability; and as to profitableness, it scarcely requires the test of experiment—its profits will be almost a clear gain to the country; for it will neither divert capital nor labour from their present employment; there being very little of the former required, and the latter being chiefly to be taken from those classes that are now idle and unproductive. It will, besides, bring into use those lands, which, by nature or mistaken management, are now totally unproductive—there are millions of acres of this "oldfield," waste land, in the United States, and much of it in the most thickly settled states, which may be occupied with mulberry orchards, and thus rendered profitable. There can be no doubt, therefore, of the policy of introducing the culture of silk.

Much has been said and published relative to the policy of the government encouraging the silk culture. Indeed, we fear that individual enterprise has been weakened in this way; for there is nothing in political economy clearer than the policy of leaving to individual enterprize, that which it is capable of accomplishing; and extending the strong arm of the government to the aid of that only which requires the assistance of Hercules. Any prospect of aid from government before individuals have tried their strength, is sure to encourage a dependence upon government and thence a relaxation of individual energy. In the matter before us, we have no doubt of the competency of individual enterprise to the introduction of the silk culture to the fullest desirable extent in the course of time; and with a trifling aid from government, in a very few years. But on the mode by which this aid is to be given depends all its efficiency. We have reflected long and deeply upon this subject; we have investigated it in all its bearings; added experiment to theory, and brought to bear on these the lights of history. If we have read of governments engaged in establishing silk factories, we have found them so in times and under circumstances far different from ours—when art was mystery; when the light of science was mere "moonshine on a blasted heath;" when the people served governments; and when nothing less than the purse of a government could purchase the secrets of an art. We could not cite precedents like these for our own times and especially our own country. Here the arts are at the command of all, and all are capable of applying them to the great purposes of their existence. Here governments are instituted for the service of the governed, and the people are the recipients of every public good. The art of silk-making is not now a secret which one king must purchase of another; but a simple process susceptible of acquirement by every human being of common intelligence. Hence the power of government is not now necessary to the introduction of the silk culture, whatever it may have been in the times and under the circumstances alluded to. And yet, a judicious extension of governmental aid would facilitate and hasten the object But, we repeat, on the *mode* of this aid must depend its efficiency, and probably the question whether it will not prove positively detrimental, by causing a relaxation of individual exertion.

We think the proposition at the last session of Congress, to give to an individual forty thousand dollars to instruct sixty young men in the art of reeling silk, the most injudicious mode that could be adopted for the attainment of the object. It would paralyse all other individual efforts—first by discouraging them, and secondly by creating a monopoly against which no other establishment could contend. It would fail of its object, because no young men in the different states, would be found able, or if able, willing, to incur the expense of travelling to and fro, board, &c. to attend two annual courses of tuition of five months each in a distant city, for an object so easily attainable at home. It would be impolitic and unjust, because it excludes competition in the pursuit of its advantages, confining them to a single individual. But if in no other respect objectionable, it is untimely, and will utterly fail of its object on this account—it would be like a farmer preparing to make cider before he had planted his orchard. There is an abundance of knowledge of the silk business in the United States to work up all the raw material that can be produced by our present supply of mulberry trees, and by the time the orchards now planting shall come into use our knowledge of the art will become sufficiently extended for their use.

The only mode of government patronage which we think at all admissible, in addition to that now offered by the duties on the imported article, is that of *bounty*. Let government appropriate the forty thousand dollars as a bounty fund, to be paid for the cultivation of mulberry trees and the production of silk, and it will call into action more silk reels than five hundred such appropriations where individual competition is excluded. The details of such a mode of encouragement are simple. To every individual who should prove to the satisfaction of the government, that he had planted out an orchard of one thousand mulberry trees with a view to the cultivation of silk, let a bounty of fifty dollars be given; and to him who shall prove in like manner that he had made one or more pounds of merchantable silk, let five dollars for every pound be paid, or a sum in proportion to the value of the kind of silk produced. This would be real encouragement to the silk culture, and would facilitate its introduction. Besides, all who have contributed to the support of the government, would have a chance for the enjoyment of its advantages in this respect.

There is another plan of encouraging the silk culture which we have long intended to recommend, and which we think better of, even than that last suggested—it is in its detail the same as the above, but a measure of the *individual states.* Some state legislatures have had the subject before them, but none have acted upon it with sufficient energy to lead to any efficient result. Maryland and Delaware, above all, should act upon it without delay. But let them and all other states beware of any other mode than that of bounty, above suggested; for they may be assured that any money given for this object in any other way than that of bounty will be absolutely thrown away, and probably act detrimentally, by causing a relaxation of individual exertion, on which alone all enterprises of this kind must in the nature of things depend.

IMPROVEMENTS IN AGRICULTURE. The greatest and almost exclusive obstacle to improvements in agriculture, is the prejudice existing in favor of old systems, or rather want of system. The practices learned from their forefathers are taken for granted to be the best, and any attempt at improvement upon them is treated with derision and contempt. There are many worthy exceptions to this, it is true; but if we take a view of our agricultural community as a whole, we shall find the remark not only generally true, but much more so than a casual observer would be willing to believe. Go where you will a thoughtless and careless adherence to old customs will be met with on all sides, with but an occasional exception. Here and there, a beautiful mansion, well arranged barn-yard, well tilled, luxuriant and properly fenced fields, healthy and thrifty orchards, and improved stock, will be seen like a bright star in the wilderness of ephemeral and misty meteors of the system. The most unaccountable circumstance in this state of things is the fact, that the great success that universally attends these instances of improved practice does not disperse the doubts and prejudices of the neighboring farmers; but so it is. They view the fine crops, fine cattle, and all the other fine things, results of a wise practice, as the result of accident. "O! he is a lucky farmer," say they, and give themselves no further trouble about the cause of his prosperity. Indeed his great success is itself, by the weakness of human nature, no small obstacle to his example being followed by his neighbors. It too often excites envy instead of emulation, and from this cauldron the vials of all the malevolent passions are filled, and their contents directed towards him. How happy would be the condition of farmers in this country if the reverse of this state of things existed! There is no country on earth in which the condition of the agricultural community is susceptible of being made so comfortable and happy, as in the United States. While in the most favoured country on the globe, except this, the labour of farmers is taxed to almost a moiety of its earnings, it is here comparatively unvisited by the tax-gatherer. We know well that much and loud complaint is made by our farmers against the oppression of taxes; but let them look at the amount of taxes paid by the agriculturists of any other, we care not what country, and their complaints will cease. That their condition is at present not prosperous, is readily admitted, but we contend that the fault is with themselves; and nothing but the unexampled fertility of our natural soil, and the propitiousness of our climate saves them from utter ruin. How long would the farmers of England keep themselves from starvation, if they pursued the system generally practised in this country?

It is not for want of sources of information that so little improvement is made in our agriculture; but from the neglect of them. This arises from, besides a prejudice for old customs—they are unworthy of the title of systems,—a prejudice against "book farming," as it is termed. This has done much injury, and is utterly groundless. It is "book farming" that has brought our agriculture even to its present state. The fact is that agriculture has derived as much benefit from the invention of printing as any other department of human industry. Through the medium of the press farmers have been informed of the objects of agricultural attention in distant parts, and thus been enabled to introduce such of them as were adapted to their soil and climate. But that every subject of agricultural attention is susceptible of improvement is easily proved; and if so, that it is the interest of farmers to make the improvements will not be denied. Let us glance at a few instances of improvement that are now considered in a state of perfection by farmers generally. Wheat in its natural state was scarcely any thing more than *cheat.* Potatoes were small contemptible roots, such as we at this time, would scarcely think of taking from the ground. Cabbages in a state of nature, are little better than wild mustard; and cotton, now one of the principal staples, and a source of wealth to our country, in its original state, could scarcely be appropriated to the use of man. These are but few instances; the whole catalogue of agricultural products were in the same state, till human wisdom and industry improved them by cultivation. If, then, such has been done, may we not fairly conclude that the process of improvement may be continued? for, as it is not allowed to human nature to attain a state of perfection, so we may fairly conclude that the works of man are imperfect, and are capable of improvement *ad infinitem.*

Extract of a letter from a gentleman in Richmond county, Va. Dec. 1, 1830.

"Our crops of corn are very short in consequence of the drought, and the fly is seriously injuring the wheat. I do not think that half a crop of corn is made in this county."

Prices Current in Boston, Dec. 3.

Apples, new, bbl. 1.25 a 1.50. *Beans*, white, bushel, .90 a 1.10. *Beef*, mess, bbl. 8.50 a 9 .00; cargo No. 1, 7.00 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 5.75 a 5.87; Genesee, 5.62 a 5.87; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .65 a 67; Rye, .68 a .70; Barley .58 a .60; Oats 36 a 38. *Hogs-Lard*, 1st sort new, lb. 10 00 a 11.00 *Pork*, clear, bbl. 18 a 19; Navy, mess, 12.50 a 13.00; Cargo, No. 1. 12.75 a 13.75; *Seeds*, Herd's Grass, bu. 1.75 a 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb..33 a. 38; White Honeysuckle Clover, 25 a .38; Red do. Northern, 10 a 11; French Sugar Beet —— Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .50 a 62; do. do unwashed, .30 a .35. Merino mixed with Saxony, .62 .67; Merino three fourths washed, .52 *a* .57, do. half blood, .47 *a* .50; do. quarter, 37 *a* 40. Native, washed .36 a .38; Pulled, Lambs', 1st sort, 52. a 53; do. 2d sort, .40 a .42; Pulled Spinning, 1st sort, 45.

Prices Current in New York, Dec. 4.

Beeswax, yellow .20 a 22. *Cotton*, New Orleans .11½ a .13½; Upland, .9½ a .11½; Alabama, .11 a .13. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax .12 a .16. *Flax*, American, 7 a 8. *Flaxseed*, rough, cask — clean 10.25 a 10.37½. *Flour*, N. York, bbl. 5.6¼ a 5.12½; Canal 5.12½ a 5.37½; Balt. Hwd. st. 5.37½ a 5.50; Rh'd. city mills, 5.69 a 5.75, country, 5.12½ a 5.25; Alexand'a, 5.12½ a 5.25; Fredericksburg 5.12½; Petersburg, 5.12½ a 5.25; Rye Flour, —— a 3·75; Indian Meal, per bbl. 3.31 a 3 50; per hhd. 14.50 a 14.75. *Grain*, Wheat, North, —— a 1.06; Vir- 1.00 a 1.05; Rye, North, — a 70; Corn, Yel. Nor. .61 a 63; Barley, 77 a 78; Oats, South and North, .27 a .34; Peas, white, dry, 7 bu. –. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.62½ a 7.75; prime 5.00 a 5.25; cargo 4.00 a —— Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 9. a .10; Pork, mess bbl. 14.00 a 14.25.

D. & C. LANDRETH'S GARDEN SEEDS.

The Subscriber would inform the public that he is now furnished with a fresh supply of the Messrs. *Landreth's* celebrated GARDEN SEEDS, of this present year's growth, which he offers wholesale and retail, at the Messrs Landreth's prices in Philadelphia. His whole stock of SEEDS now on hand, are of the growth of 1830, and can be warranted with the greatest confidence. J. S. EASTMAN,
West Pratt, between Hanover and Charles streets.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—Our market continues without the slightest change in any of the staple articles. Flour and grain sell readily at quotations, and in all things there is an active business doing. Howard street flour from wagons, $5. Beef and pork remain without change—the demand for both being a little better.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 251 hhds. Maryland; and 9 hhds. Ohio; 2 hhds. Virginia; total 262 hhds.

FLOUR—best white wheat family, $5.25 *a* 5.75—super. Howard-street 5.06 *a* 5.12½; city mills, 4.75 *a* 4.87½—Susquehanna, ——; CORN MEAL, bbl. 2.25 GRAIN; red wheat, 95 *a* 1.00; -white do. 1 08 *a* 1.07—CORN, old white, .55 *a* .56——old yellow .56 *a* .57——new corn .48 *a* .50---RYE, .57 *a* .58—OATS, .29 *a* 30.--BEANS, 90 *a* 1.00-PEAS, 50 *a* 60-CLOVERSEED 5.50 *a* 6 00 TIMOTHY, 2.25 *a* 2.75—-ORCHARD GRASS, 1.25 *a* 1.50—Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, 62½ FLAXSEED 1.18 *a* 1.20-COTTON Va 9½ *a* 10½-Lou. 11½ *a* 13½ —Alab. 9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 11 *a* 12½--WHISKEY, hhds 1st p — *a* 27½; in bbls 29½ *a* 30—WOOL, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.12½, *a* 6 25---No. 2, 5.50 *a* 5.62½-No. 3, 3.50 *a* —— BACON, hams, Balt. cured 10c.-Feathers, 35 *a* 37--Plaster Paris, cargo price per ton, 4.25 *a* — —ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.00 *a* 4.75—Pork on the hoof 4.50—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—-Hickory, $4.25 *a* 4.50.

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EDITED BY GIDEON B. SMITH.

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AGRICULTURE.

(From the Southern Agriculturist.)

CUBA TOBACCO.

On the Cultivation of the Cuba Tobacco; by Joseph M. Hernandez.

To the Editor of the Southern Agriculturist:

Sir,—The following communication on the Cuba tobacco, is from a gentleman who has had opportunities of becoming thoroughly acquainted with the mode of cultivating and curing the plant, as practised in Cuba; and where experience has enabled him to ascertain the modifications necessary to be adopted in transferring the culture to this country. It will be perceived that Gen. Hernandez estimates the value of the tobacco, *in leaf,* at 50 cents per pound; a higher price than it usually brings in our markets, where it is purchased for the purpose of being used as *wrappers* for cigars; the *fillings* of which are generally of American or Virginia tobacco. It is well known. however, that the best tobacco raised in the island is never exported, being reserved for the manufacture of the celebrated Havana cigars; after selling, as we have been informed, for more than a dollar a pound, as the tobacco raised and cured here, is considered by judges as no way inferior to the best Havana; it would probably sell for even a higher price than that estimated below, were it properly prepared for market, according to the Cuba method.

There can be no doubt but that this valuable plant may be easily added to the enriching staples, and other numerous resources that form the *golden fleece of the south.* It is an advantage of this culture, that it affords an instance in which the manufacturing and agricultural interests are happily combined, as its highest profits can only be obtained by putting the tobacco into a wrought form, and making it into cigars.

The subjoined directions will be found more specific and minute, than any that have before been given to the public, and will, therefore, I hope, prove an acceptable contribution to the pages of the Agriculturist.

With respect, your obed't serv't,

W. H. Simmons.

Copy of a letter from Joseph M. Hernandez, Esq. to Dr. Wm. H. Simmons, dated Mala-Compra, April 15, 1830.

Dear Sir,—I have delayed this communication on the culture of Cuba tobacco longer than I ought, but as you are acquainted with the multiplicity of engagements that have constantly occupied my attention, I trust that you will excuse me.

The first thing to be considered in this, as in every other culture, is the soil, which for this kind of tobacco ought to be of a rich sandy loam, neither too high nor too low; that is, ground capable of retaining moisture. The more level the better, and if possible, well protected by margins. The next should be the selection of a spot of ground to make the necessary beds. It would be preferable to make these on land newly cleared, or at all events when the land has not been seeded with grass: for grass seeds springing up together with the tobacco, would injure it materially, as the grass cannot be removed without disturbing the tobacco plants. In preparing the ground for the nurseries, break it up properly, grub up all the small stumps, dig out the roots, and carefully remove them with the hand; this being done, make the beds from three to four inches high, of a reasonable length, and from three to three and a half feet broad, so as to enable the hand, at arm's length, to weed out the tender young plants with the fingers from both sides of the bed, and keep them perfectly clean.

The months of December and January are the most proper for sowing the seed in this country[*]—some persons speak of planting it as early as the month of November; I am, however, of opinion that about the latter part of December is the best time to sow tobacco seed; any sooner would expose the plants to suffer from the inclemency of the most severe part of our winter season. Before the seed is sown, take some dry trash and burn it off upon the nursery beds, to destroy insects and grass seeds; then take one ounce of tobacco seed and mix it with about one quart of dry ashes, so as to separate the seed as much as possible, and sow it broad-cast. After the seed has been thus sown, the surface of the bed ought to be raked over slightly, and trodden upon by the foot, carrying the whole weight of the body with it, that the ground may at once adhere closely to the seed, and then water it. Should the nursery beds apparently become dry from blighting winds or other causes, watering will be absolutely necessary; for the ground ought to be kept in a moist state from the time the seed is planted until the young plants are large enough to be set out.

The nurseries being made, proceed to prepare the land where the tobacco is to be set out. If the land is newly cleared, (and new land is probably more favourable to the production of this plant than it is to that of any other, both as respects quality and quantity,) remove as many of the stumps and roots as possible, and dig up the ground in such a manner as to render the surface perfectly loose; then level the ground, and in this state leave it until the nursery plants have acquired about one half the growth necessary to admit of their being set out. Then break up the ground a second time in the same manner as at first, as in this way all the small fibres of roots and their rooted parts will be more or less separated, and thus obviate much of that degree of spunginess so common to new land, and which is, in a great measure, the cause of new land seldom producing well the first year, as the soil does not lay close enough to the roots of the plants growing in it; so that a shower of rain produces no other effect than that of removing the earth still more from them. Should the land be such as to admit of being worked with a plough, it ought certainly to be preferred to the common hoe. The plough, however, should be excluded after the plants are set out.

The ground having been prepared and properly levelled off, and the plants sufficiently grown to be taken up, say of the size of good cabbage plants, take advantage of the first wet or cloudy weather to commence setting them out. This should be done with great care, and the plants put single at equal distances; that is, about three feet north and south, and two and a half, or two and three-fourths feet east and west. They are placed thus close to each other, to prevent the leaves growing too large. The direction of the rows, however, should alter according to the situation of the land, where it has any inclination the widest space should run across it, as the beds will have to be made, so as to prevent the soil from being washed from the roots by rain, when bedded; but, where the land is rather level, the three feet rows should be north and south, so as to give to the plants a more free circulation of air, and that the sun may have a more full effect on them by passing across the beds, than by crossing them in an oblique direction. To set the plants out regularly, take a task line of 105 feet in length, with a pointed stick three feet long attached to each end of it, then insert a small piece of rag or something else through the line at the distance of two feet and three-fourths from each other, place it north and south, (or as the land may require,) at full length, and then set a plant at every division; carefully keeping the bud of the plant above the surface of the ground. Then remove the line three feet from the first row, and so on until the planting is completed. Care ought also to be taken to prevent the stretching of the line from misplacing the plants. In this way the plants can be easily set out, and a proper direction given to them both ways.

In taking the plants up from the nursery, the ground should be first loosened with a flat piece of wood, or iron, about an inch broad; then carefully holding the leaves closed towards each other, between the fingers, draw them up, and place them in a basket or some other convenient thing, to receive them for planting. After taking up those which can be planted during the day, water the nursery that the earth may again adhere to the remaining ones. The evening is the best time for setting out the plants, but where a large field has to be cultivated, it will be well to plant both morning and evening. The plants set out in the morning, unless in rainy or cloudy weather, should be covered immediately, and the same should be done with those planted the evening previous, should the day open with a clear sunshine—the palmetto leaf answers this purpose very well. There should be water convenient to the plants, so as to have them watered morning and evening, but more particularly in the evening, until they have taken root.[*] They should also be closely examined when watered, so as to replace such plants as happen to die, that the ground may be properly occupied, and that all the plants may ripen as nearly together as possible.

From the time the plants are set out, the earth round them should be occasionally stirred both with the hand and hoe. At first hoe flat, but as soon as the leaves assume a growing disposition, begin gradually to draw a slight bed towards the plant. The plants must be closely examined, even while in the nursery, to destroy the numerous worms that feed upon them, some, by cutting the stalk and gnawing the leaves when first set out—these resemble the grub-worm, and are to be found near the injured plant under ground; others which come from the eggs deposited on the plant by the butterfly, and feed on the leaf, grow to a very large size and look very ugly, and are commonly called the tobacco worm. There is also a small worm, which attacks the bud of the plant, and which is sure destruction to its further growth; and some again, though less destructive, are to be seen within the two coats of the leaf, feeding as it were on its juices alone. The worming should be strictly attended to every morning and evening, until the plants are pretty well grown, when every other day will be sufficient. The most proper persons for worming are either boys or girls of from ten to fourteen years of age. They should be made to come to the tobacco ground early in the morning, and be led by inducements, (such as giving a trifling reward to those who will bring the most worms,) to worm it properly. Grown persons would find it rather too tedious to stoop to examine the under part of every leaf, and seek the worm under ground; nor would they be so much alive to the value of a spoonful of sugar, or other light rewards. Besides, where the former would make this search a matter both of profit and pleasure, it would to the latter prove only a tedious and irksome occupation. Here I will observe, that it is for similar reasons that the culture of the Cuba tobacco plant more properly belongs to a white population, for there are few plants requiring more attention and tender treatment than this does. Indeed it will present a sorry appearance, unless the eye of its legitimate proprietor is constantly watching over it.

When the plants have acquired from twelve to fourteen good leaves, and are about knee high, it may be well to begin to top them, by nipping off the bud with the aid of the fore finger and thumb nail;[†] taking care not to destroy the small leaves immediately near the bud, for if the land is good and the season favourable, those very small top leaves will in a short time be nearly as large, and ripen quite as soon as the lower ones, whereby two or four more leaves may be saved; thus obtaining from sixteen to eighteen leaves in the place of twelve or fourteen, which is the general average. As the topping of the tobacco plant is all essential in order to promote the growth, and to equalize the ripening of the leaves, I would observe that this operation should at all events commence the instant that the bud of the plant shows a disposition to go to seed, and be immediately followed by removing the suckers, which it will now put out at every leaf. Indeed the suckers should be removed from the plant as often as they appear. The tobacco plant ought never to be cut before it comes to full maturity, which is known by the leaves becoming mottled, coarse, and of a thick texture, and gummy to the touch; at which time the end of the leaf, by being doubled, will break short, which it will not do to the same extent when green. It ought not to be cut in wet weather, when the leaves lose their natural gummy substance, so necessary to be preserved. About this period the cultivator is apt to be rendered anxious by the fear of allowing the plants to remain in the field longer than is necessary, until experience removes these apprehensions; he should be on his guard, however, not to destroy the quality of his tobacco, by cutting it too soon. When the cutting is to commence, there should be procured a quantity of forked stakes, set upright, with a pole or rider resting on each fork, ready to support the tobacco, and to keep it from the ground. The plant is then cut obliquely even with the surface of the ground, and the person thus employed should strike the lower end of the stalk two or three times with the blunt side of this knife, so as to cause as much of the sand or soil to fall from it as possible; then tying two stalks together, they are gently placed across the riders or poles prepared to receive them. In this state they are allowed to remain in the sun or open air, until the leaves have somewhat wilted, whereby they will not be liable to the injury which they would otherwise receive if they came suddenly in contact with other bodies, when fresh cut. Then place as many plants on each pole or rider as may be conveniently carried, and take them into the drying house, where the tobacco is strung off upon the frames prepared for it, leaving a small space between the two plants, that the air may circulate freely among them, and promote their drying. As the drying advances, the stalks are brought closer to each other, so as to make room for those which yet remain to be housed.

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[*] Florida.

[*] It is hence generally necessary that wells should be sunk at convenient distances through the field.

[†] Washing the hands after this in water is necessary, as the acrid juices of the plants, otherwise, soon produce a soreness of the fingers.

In drying the tobacco all damp air should be excluded, nor ought the drying of it to be precipitated by the admission of high drying winds. This process is to be promoted in the most moderate manner, except in the rainy season, when the sooner the drying is effected the better, for it is a plant easily affected by the changes of the weather, after the drying commences. It is then liable to mildew in damp weather, which is, when the leaf changes from its original colour to a pale yellow cast, and from this, by parts, to an even brown. When the middle stem is perfectly dry, it can be taken down, and the leaves stripped from the stalk and put in bulk to sweat; that is, to make tobacco of them, for before this process, when a concentration of its better qualities takes place, the leaves are always liable to be affected by the weather, and cannot well be considered as being any thing else than common dry leaves, partaking of the nature of tobacco, but not actually tobacco. The leaves are to be stripped from the stalks in damp or cloudy weather, when they are more easily handled, and the separation of the different qualities rendered also more easy. The good leaves are at this time kept by themselves, for *wrappers* or *caps*, and the most defective ones for *fillings* or *tripa*. When the tobacco is put in bulk, the stems of the leaves should all be kept in one direction, to facilitate the tying of them in hanks; afterwards make the bulk two or three feet high, and of a proportionate circumference. To guard against the leaves becoming overheated, and to equalize the fermentation or sweating, after the first twenty-four hours place the outside leaves in the centre and those of the centre to the outside of the bulk. By doing this once or twice, and taking care to cover the bulk either with sheets or blankets, so as to exclude all air from it, and leaving it in this state for about forty days, it acquires an odour strong enough to produce sneezing, and the other qualities of cured tobacco. The process of curing may then be considered as completed. Then take some of the most injured leaves, but of the best quality, and in proportion to the quantity of tobacco made, and place them in clear water, there let them remain until they rot, which they will do in about eight days; then break open your bulks, spread the tobacco with the stems in one direction, and dampen them with this water in a gentle manner, that it may not soak through the leaf; for in this case, the leaf would rot.* Then tie them in hanks of from twenty-five to thirty leaves; this being done, spread the hanks in the tobacco-house for about twelve hours, to air them, that the dampness may be removed, and afterwards pack them in casks or barrels and head them tight, until you wish to manufacture them. The object of dampening the tobacco with this water, is to give it elasticity to promote its burning free, to increase its fragrance, to give it an aromatic smell, and to keep it always soft. This is the great secret of curing tobacco for cigars properly, and for which we are indebted to the people of Cuba, who certainly understand the mode of curing this kind of tobacco better than any other people. It is to them a source of great wealth and may be made equally so to us. We can have here three cuttings from the original plant —the last cutting will be of rather a weak quality, but which, nevertheless, will be agreeable to those who confine their smoking to weak tobacco.

In ratooning the plant, only one sprout ought to be allowed to grow, and this from those most deeply rooted—all other sprouts ought to be destroyed.

The houses necessary for the curing of tobacco ought to be roomy, with a passage way running through the centre, from one extremity of the building to the other, and pierced on both sides with sufficient number of doors and windows to make them perfectly airy.

In addition to what I have said respecting the mode of cultivating and treating the tobacco plant, I have further to state, that once the plant is allowed to be checked in its growth, it never again recovers it. That in promoting the drying of the leaf, fire should not be resorted to, because the smoke would impart to it a flavour that would injure that of the tobacco itself.

In order to obtain vigorous plants, the seed ought to be procured from the original stalk, and not from the ratoons, by allowing some of them to go to seed for that express purpose. In Cuba the seed is most generally saved from the ratoon plants, but we should consider that that climate and soil are probably more favourable to the production of this plant than ours, and, consequently, we ought to confide in the best seed, which is had from the original stalk.

All plants have their peculiar empire, nevertheless we should not be deterred from planting Cuba tobacco here, for even should we be compelled to import the seed every third year, which would be as often as would be necessary, it would still prove a profitable culture. Taking 600 lbs. which is the average product per acre, it would yield (if well cured,) at 50 cents per lb. $300, in the leaf.

As to the quantity of land which can be cultivated to the hand, there is some difference in the practice of planters; however, I think that I am within the usual calculation in saying, that an acre and a half would not exceed the quantity that an able hand can easily cultivate and manage properly.

The following exhibits the profits to be derived from it when manufactured into cigars:—

600 lbs. allowing 8 lbs to the 1000, would produce 75,000 cigars, which, at $10 per thousand, - - -		750 00
Cost of the leaf, - -	300 00	
Worth of manufacture at $2.50 per thousand, - -	187 50	—487 50
Difference in favour of the manufacturer,		$262 50

This amount being the profits of the manufacturer alone, the profit to him who would combine both pursuits would be more than doubled.

I am, with respect, your obed't serv't,
JOSEPH M. HERNANDEZ.

N. B. I have omitted to state the cost of the cigar boxes, which of course has also to be deducted. This would vary according to the facility of obtaining materials, but probably would not exceed 25 cents per box.

To Dr. Wm. H. Simmons.

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* Sponge is used in Cuba for this delicate operation.

THRESHING MACHINE.

Quincy, Franklin County, Penn.
MR. SMITH: *Dec. 7, 1830.*

Sir,—In looking over your paper, called the American Farmer, I see you request information from some practical farmer respecting a threshing machine. Now, sir, I will inform you of a machine that I have had in use for threshing nearly two crops, say about 3000 bushels wheat, rye, and oats, and the shelling of about 1200 bushels of corn; the expense of this machine is 150 dollars, including the corn-sheller, with a three-horse power. It is constructed on the following plan, three feet six inches wide, with two cylinders curved, so as to make three beaters on each, which run together by two small cog wheels, forming circles of ten inches each, turning the cylinders or threshers as they are commonly called; these threshers are made of wood, with moveable plates screwed on so as to move them back and forwards as it is necessary in threshing wheat or rye. I thresh my rye and save my straw in very good order for thatching or cutting without any kind of extra trouble; the grain is passed through two feeders 1¼ inches thick, made to pass the grain through, and holding it fast all the time, while the threshers hit it every eighth of an inch, not admitting any thing through that can injure the machine. I have threshed from 9 o'clock till 4— say 5½ hours work, (1½ hours for feeding and dinner,) 106 bushels of wheat; this we did frequently, with three horses, one man, two boys, a little chap to drive the horses; the machine cannot run all the time with such attendance, but two hands more could attend, so as to keep it agoing. On one trial I threshed 128¼ bushels of wheat, running the machine 3¾ of an hour; I have threshed 90 bushels rye in half a day often. I should have had no expense of repairs worth mentioning if I had not got green poplar wood for threshers, which gave out, and I had to put in new ones; if good seasoned wood is used, I think they would last for ages. My machine is among the first that was built in this county; there are several built here that are much better than mine. I have seen one of them thresh 120 large sheaves of wheat in six minutes very clean. The corn sheller, a very simple addition, costs little, and performs well, say at least from 30 to 50 bushels per hour, not breaking the cobs, and the corn is on one pile and the cobs on the other; this is done by a revolving straw carver that separates the grain from the straw in the nicest manner. Drawings and calculations will be furnished if requested, by your humble servant, SAML. FISHER.

N. B. The bearings run on block-tin or brass.
S. F.

If you are vexed or angry, you will have two troubles instead of one.

(From the Montgomery Sentinel.)

ON THE USE OF LIME AS A MANURE.

Ashton, November 29, 1830.

Mr. Patterson,—I perceive by your paper of the 16th inst. that you have republished from the Village Record, Mr. Miner's letter to Mr. M'Clure on the subject of lime as a manure. The subject is an interesting one to the scientific farmer, and I hope I shall be excused in offering a few remarks in addition to the judicious observations of Mr. Miner.

That lime is a beneficial manure to most soils, is a fact that has stood the test of too much experience to be any longer matter of doubt to those in any degree acquainted with the subject. That a prejudice has arisen against its use in the minds of some who have given it an imperfect trial, is not strange, when the causes which may produce failure come to be inquired into. We will leave these, however, for the present, and make a brief inquiry into the manner in which lime acts as a manure, or in other words, becomes a *pabulum* or food for plants.

Pure or caustic lime is never found in a state of nature; but lime is found in the greatest quantities in combination with some of the acids, as with the Fluoric, in the form of Derbyshire or Fluor Spar, with the Sulphuric in the form of Gypsum of plaster of Paris, and with the Carbonic in that of chalk, marble, or common lime stone. Now caustic lime, although it may be applied with immediate advantage to some particular kinds of soil, does not in itself constitute a food for plants, therefore cannot strictly be called a manure; its first effect is to produce a new arrangement in some of the primary constituents of the soil, thereby proving merely a corrective; it afterwards becomes a manure, as will be shown. For instance, a piece of land is sterile, in consequence of the soil being impregnated with a certain proportion of sulphate of iron, (which is deleterious to vegetation,) although the other ingredients are of a character to produce fertility. All that is necessary in this instance, is to apply a dressing of quicklime from the kiln, the sulphate of iron becomes decomposed, the acid uniting with the lime and forming gypsum, which is a manure, and the iron being freed from the acid is no longer hurtful.

Caustic lime not being a proper food for plants, it remains to inquire in what manner it comes to act as a manure in the common mode of using it, as it is most frequently applied in that state.—It has been ascertained from chemical analysis, that in the composition of all vegetable substances *carbon* preponderates; it is therefore fair to infer that the food of vegetables is in a great degree carbonaceous; hence lime to operate as a manure should be in the form of a *carbonate*. If it should be asked why it would not answer as well to apply it in the state of crude limestone, thereby saving the expense of burning, &c. the solution is obvious. In that state it is a solid, compact substance, totally impervious to the roots of plants, and it would be physically impossible to reduce it to so minute a subdivision as can be effected by previous burning and slaking. In that state it would act upon the soil very much as other stones—principally to incumber it. There is, however, a species of limestone, found in some parts of Great Britain, which is used in its crude state; but it is very different in its general characteristics from the common kinds of limestone, being much less solid and tenacious in its texture, so much so, that, as the common people there express it, "it sheds a coat every year:" this is the effect of moisture and frost. To surmount the objections to the use of carbonate of lime in the form above stated, it becomes necessary to destroy the force of cohesion by means of fire, which, however, is attended with the inconvenience of the loss of all the carbon, which is driven off by the heat. This, however, is of trifling importance in comparison with the advantage gained; for so great is the affinity of lime for carbonic acid, that when exposed to the atmosphere, it gradually attracts a sufficient quantity to form it again into a carbonate of lime, and being now in a state of minute subdivision, or at least in a state which easily admits of it from external causes, it is in a state to afford the sustenance required by vegetables, and it becomes a manure. As this process, however, is comparatively slow, we do not perceive that much benefit is derived from its application by the first two or three crops, and it is not until after the field gets in with grass that its utility becomes fully apparent.* As the object, therefore, is to get the lime into the state of a carbonate as soon as possible, I would suggest the propriety of spreading it on the field intended to be ploughed for corn, the autumn previous, ploughing it under in the spring.

Some allusion has been made to the fact that lime sometimes fails to act in a favorable manner, when applied for the purpose of a manure, but on the contrary proves injurious to the soil with which it is incorporated, disappointing the well-meant endeavors of the industrious farmer, and discouraging from further trials. This is a dilemma, however, that a trifling acquaintance with science might have enabled him to steer clear of.—There is a peculiar kind of limestone to be found in many parts of our country, and with difficulty distinguished from the common sort, except by chemical tests, which contains a considerable proportion of *magnesia,* an earth similar to lime in some of its properties, but at the same time a totally distinct substance, and one that in its caustic state is absolutely *poisonous* to all kinds of vegetation, if applied in sufficient quantities. Now this substance, like lime, has the power of attracting carbonic acid from the atmosphere and other sources; but then it combines with it so slowly, and remains in a caustic state so long, that when applied to land in any considerable quantity, it proves hurtful to vegetation for a long time, or until it becomes saturated with carbon, when it continues so no longer, and we find that land that has been *killed* with magnesian lime, finally comes to and becomes more fertile than ever. Magnesian lime should never be applied in larger quantity than 25 bushels to the acre, and it would be better in all cases to first make it into a compost with loamy earth.

The combination of lime with magnesia in the manner spoken of above, I suspect to be the principal if not the sole cause of its failure in every instance (except where pure lime is applied in excess) and it would be well in all cases where a new quarry of limestone is opened, to subject it to chemical analysis. The test for magnesian limestone is very simple and may always be easily obtained at a very trifling expense.

Lime has the power of attracting carbonic acid from other sources besides the atmosphere, the most fruitful of which is vegetable substances in a state of decomposition; therefore the most speedy way of deriving benefit from it, is to plough it under in conjunction with a green crop. I know of an intelligent farmer who has been very successful in reclaiming worn out lands in this way.

I remain yours, &c. H.

Method of Preserving Grain from the Depredations of Mice.

Fix in a heap of the grain, or in any other similar matter, which you desire to keep from the ravages of the mice, some stalks, with their branches and leaves, either green or dry, of water cresses, (*sisymbrium,*) and none of those mischievous animals will approach it. Some leaves of this plant will be even sufficient to drive them from any place to which it is desired to prevent their having access.—*N. E. Farmer.*

HORTICULTURE.

(From the Southern Agriculturist.)

ON THE VINE.

On the formation of vineyards of native vines, and the ingrafting of grape-vines; by N. Herbemont.

Columbia, September 4th, 1830.

Dear Sir,—When I received your letter of the 21st ult. I was in the bustle of my vintage, which bustle is not much diminished by the smallness of the crops, for it takes the same trouble, and sometimes more, to make a small quantity of wine as it takes for a large: *ergo,* I wish always for a very abundant crop, and if this reason does not appear sufficient for you, I can furnish you with many more, some of which are sufficiently obvious.

You request to be informed as to the divers manners of grafting the vine, and the advantages to be expected from the operation; and also, whether it would answer a valuable purpose to have vineyards entirely of native grapes.

The only native grape I have as yet cultivated on a scale large enough to make wine of, is our small summer grape, which I call "Arena," on account of its growing abundantly on our sand hills. The wine it produces is very good, particularly when it is two, three, or more years old. When new it has a harsh, rank taste, which renders it unpalatable, and which a person without experience would suppose age could never correct. Although this grape is not liable to rot much, it has the disadvantage of being very difficult of cultivation, for it takes but seldom well from cuttings, and this mode of propagating the vine is the only one used in extensive cultures. Another of its disadvantages is, that it yields very little juice comparatively with almost all the cultivated grapes. and particularly, with my "Madeira," which is certainly the most juicy grape I ever had any thing to do with. To obviate as much as possible the first difficulty, plants of it may be removed from the woods to the vineyard, taking care to select the young and vigorous ones. They may also be propagated by layers, for which purpose shoots growing from the ground, or the lower part of the stem, ought to be suffered to remain and be encooraged. At the time of pruning, fall or winter, these shoots ought to be laid in the ground, five or six inches deep; the earth below being well spaded, or made mellow and rich, if it be not so naturally. One or two feet in the ground is enough, and the end that comes out is to be cut down to one or two buds. If the layer is long enough, it may make two or even three plants, by laying it in and out of the ground in an undulating manner.

I would recommend always to cover with earth, if possible, the part of the layer next to the main stalk; for, if it be not covered, it will most probably put out a strong shoot close to the main one, and this will be a great detriment to the layers. Layers may also be made in the summer, (in July) of the growth of the season, and they will have taken sufficient roots to be transplanted the following spring; if not, the spring after. In case of removing them the next spring after they have been laid, they ought to be planted as soon as they have been taken up, that the roots, which are very young and tender, may not be injured by drying. In either case, the layers ought to be very carefully separated from the parent vine, and dug up without injuring the roots at all, if possible. It is a good way to have the holes made to receive them before they are taken up. If, however, this is not practicable, as when the plants are brought from a distance, the roots ought to be covered with earth, moss, or a wet cloth, so that they be not exposed to the sun or the wind. I have moved many vines with these precautions, and they bore fruit the same season nearly as well as if they had not been disturbed. Plants, however, may be taken up in the fall and kept perfectly safe, packed in boxes in earth or live moss; (but not straw or hay,) or put in the ground and remain in either situation until the spring, without their losing their capacity for growing. My reason for using live moss is, that as long as it is alive, no fermentation takes place; but straw or hay, particularly if wetted, ferment and heat, which hurt, and sometimes kill the vines or other plants packed in them. Earth or sand is very good.

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* I allude to the usual mode of applying it to the maize crop.

There are spots where vines grow most abundantly, and if the situation be not objectionable, a vineyard may readily be made in such a place at a very small expense. Let all the trees be cut down and the bushes be grubbed up, leaving only the vines. Where these have several stems growing from one root, and it is desirable to fill a place in its vicinity, one or more of these stems are to be laid in a trench made about a foot deep at least, the bottom of it being well stirred, and perhaps manured, so as to induce the roots to strike into it, and let the top or tops come out at or near the place where a vine is wanted. It will soon form a vigorous vine, and if there were several branches forming the top, all but one may be taken up when they have taken good roots, the first or second spring, and transplanted elsewhere. The principal layer may then (the second spring) be separated from the parent root with a saw. In this manner, and by taking up and transplanting such vines as may be too close to others, a vineyard is soon made, and it will be in full bearing in the course of two or three years. When the ground is clear of the trees and bushes, the vines must be pruned very close; this will make them put out strong shoots, which being properly pruned the following winter, will bear abundantly, and the fruit will even then, be found already improved. A coarse frame of durable wood must be put up to support the vines, and the better these are evenly spread and pruned, the more they will bear, and the fruit improve.

In such a place, as is here contemplated, many barren vines will be found, for a great portion of the wild vines are male plants that never bear fruit. These must not be therefore rooted up, but they may be used for stock to graft upon. And so may all the vines on such a spot be used as stocks to graft on, if it is desired to have a vineyard of an entirely different grape from the native one.

In order to graft successfully, several precautions must be taken. First, procure good scions for the grafts in the fall, if they grow in your neighbourhood or south of you. Put them in a box in sand, and deposit this box in the coldest place you can find, or bury them on the north side of a house, hill, or any thing else that may render the situation as late in vegetating as practicable.* If cuttings or scions for grafting are procured from the North, and they are not taken from the vines till early in the spring, they will do very well to be used as soon as they have been obtained. It is evidently seen that the object aimed at is to have the vegetation of the scions less forward than the stock to be grafted on. The best time for grafting is when the buds of the stock are just beginning to swell, which is an indication that the sap is in motion. If grafting is done long before this period, it will frequently fail, and but very seldom after the buds are beginning to grow. I have, even rarely failed in grafts done when the stock grafted upon was in full leaves, and as late as June, provided the buds of the scion have made no progress, or very little in swelling. There are principally, two manners of grafting the vine that are very successful; in both the graft is inserted below the surface of the ground about two or three inches. The most common and the best, when the stock is small, (less than one inch in diameter) is what is usually termed "cleft grafting." After having dug away the earth at the foot of the vine to the depth of five inches, saw it off and split it with a strong knife and a hammer—take then a scion with two, or even three good buds, with a sharp knife cut the lower end of it in the form of a wedge—with a wooden wedge, (or an iron instrument made on purpose for cleaving and holding the cleft open) driven into the cleft on one side of it, keep it open and insert the graft so that the bark of the stock and that of the scion coincide in the usual manner—take out the wooden wedge, and if the spring of the stock is not strong enough to hold the scion firm, tie it with any thing that will rot after awhile, then place any thing over the part of the cleft that is open, so as to prevent the earth from getting into it—fill up the hole with the earth, so that one bud of the graft be out of the ground, drive a few sticks round it to protect it from injury, and leave it to itself. The other mode of grafting, suitable for stocks of any larger size than the preceding is, after having sawed off the stock, as above, to bore one or more holes into it with a gimblet, or a bit of a suitable size to the depth of an inch and a half, or thereabouts. Prepare then the scion by cutting with a sharp knife the bark all around, and cut it off below so as to make it to fit the hole, leaving a shoulder, drive the scion down to the shoulder, and it is done—covering it with earth, leaving but one above the ground. If the stock is only one inch, or not much more in diameter, one hole only is made in the middle of it; but if it be larger, make two or more, according to its size, and drive into each of them a graft prepared as above. It appears from the success that has generally attended this mode of grafting, that it is not necessary for the vine, as it is for any other tree which I ever grafted, that the bark of the graft should be even with that of the stock, and in this the vine has a considerable advantage. These grafts will generally grow the first year to an astonishing size, depending, however, on the strength of the stock. It sometimes happens that the stem of a vine does not continue of the same thickness downwards to a sufficient depth, before the roots diverge from it and the stock has not length enough to be either split or bored. In this case, cut off the crown of the roots and into each of them that are large enough, insert a graft, and the following spring you may dig them all up but one that is to remain. I am also indebted for this mode of grafting, by boring, to my old friend's book quoted above.

There are many other kinds of native grapes that are cultivated north of this, some of them extensively, and are stated to produce a good wine. I have many of them on trial, and shall, I hope, make wine of some of them in due time. Two other native kinds I have tried, but am not pleased with the result. These are our Fox-grape and our Bullace. My experiments on these ought, perhaps, to have been repeated, but the experiments are so very troublesome and expensive, that I can only bestow my attention on the most promising varieties.

The kinds of grape that have as yet succeeded best with me for wine, are, first, the "Madeira." called at the North "Herbemont's Madeira," the "Bland's," or "Powell's Madeira," also called "Rose-Grape," and the "Lenoir." They are probably all three imported vines.

My crop this year at Palmyra has been again almost a total failure, owing to circumstances which I hope to correct. That in my garden has been much better, for notwithstanding a great deal of rot in the first part of the summer, I made from it about 176 gallons of wine, which I am satisfied will be very good. I presume this is at the rate of much more than 1000 gallons to the acre. Of this quantity, 151 gallons are of my Madeira. If I ever succeed as well at my farm as I do in my garden with this grape, it will be, most undoubtedly the most valuable plant cultivated in the Southern States, or indeed elsewhere; for it is the best and the greatest bearer of all I have ever seen. My failure at Palmyra is to be attributed, I think, to the improper selection of the site. I have strong grounds for believing this, and I am now labouring hard, very hard, to remedy the evil by removing it to a better situation.

I am anticipating pleasure and instruction from Mr. Clarke's communication for your "Agriculturist;" much is to be expected from him, and perhaps even the discovery of the cause of the rot, (which I believe is different from the mildew) and of course the remedy.

I am, dear sir, very respectfully, your obed't serv't,
N. Herbemont.

(From Prince's Pomological Manual.)

PEACHES.

(Concluded from page 309.)

George the Fourth. *Pr. cat. Pom. Mag.*

This fine freestone variety is stated to have originated in the garden of Mr. Gill, in Broad-street, New York. The tree is of vigorous growth, and produces plentiful crops; the flowers are of small size, and a dingy red colour; the leaves indicate much vigour, and are of large size, with acute crenatures, and are attended with small globular glands; the fruit is dark red on the sunny side, and on the part that is shaded a fine light yellow, marbled with a lively shade of red where the colours meet each other; the flesh is straw colour, with some veins of red near the stone, which is of small size; in point of flavour, it may be ranked among our very good peaches, but we have a number that are more rich and perfumed; in size this peach is about medium; the form is round, deeply lobed at the head, and the stem is inserted within a deep cavity, which extends more towards one side of the suture than the other.

Beauty of Vitry. *Pr. cat.*

The leaves of this tree are furnished at their base with rounded glands; the flowers are of medium size, and eleven to twelve lines in breadth; the fruit is beautiful, and measures twenty-six to twenty-eight lines in height and often thirty; its diameter is in proportion from twenty-eight to thirty and sometimes even thirty-three or thirty-four lines; its form has no peculiar characteristic, the longitudinal groove is not deep, but extends a little beyond the summit of the fruit, where there is a very small mamelon or nipple; the skin is generally velvety, almost entirely of a whitish green, except on the sunny side, which is slightly washed with red; it separates readily from the flesh, which is white with the exception of that part next the stone, where it becomes slightly reddish; it is very succulent and replete with juice of a sweet, rich, and very pleasant flavour; the stone is large, oblong, swollen at the part next the point, and thin at the base; it is fifteen to sixteen lines in length, by about eleven in its greatest diameter. This peach attains its greatest maturity, in the vicinity of Paris, at the end of September, or the beginning of October, and in the south of France about the middle of September. The period of the maturity of peaches is generally rather earlier in the vicinity of New York than at Paris. Although I follow Duhamel in placing the Admirable tardive as a synonyme of this variety, I perceive that in some French catalogues, the titles are placed separately, as if referrible to distinct fruits.

Apricot Peach. *Pr. cat.*

The flowers of this tree are large; the fruit is large, round, flattened, least broad at the head, and divided by a shallow longitudinal groove; the skin is covered with down, yellow on the shaded side, and somewhat red on the part exposed to the sun; the flesh is yellow like that of an apricot, and red next the stone; it is rather firm, and sometimes even a little dry, unless it is perfectly ripe; the juice is pleasant, perfumed, and much resembles the apricot, when the autumn is hot and favourable for its maturity; the stone is small in comparison with the size of the fruit, and it separates with difficulty from the flesh. This peach ripens at Paris about the middle of October, and on standards it gains in quality what it loses in size. Duhamel remarks that it may be propagated from seeds without degenerating; he also remarks that it is sometimes met with producing small flowers, and that there also exists another variety with very large flowers, which yields still larger fruit.

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* The late Mr. John James Dufoir, in his very valuable book, called the "American Vine-Dresser's Guide," printed at Cincinnati, Ohio, proposes to deposite such a box, with the vine-cuttings in sand, in an ice-house, so as to prevent, or rather retard vegetation, and I believe this experiment would be attended with the best success.

CATHARINE. *Pr. cat. Pom. Mag. Lang. Pom. Switz. Mil. Hitt. For. Lond. hort. cat.*

I extract the following description of this clingstone variety from the Pomological Magazine.

"An old and very valuable variety, ripening in the end of September and beginning of October, and possessing far greater merit than any other of our late clingstone peaches. When fully matured, it is excellent and extremely beautiful; but to be eaten in perfection, it should have been gathered a few days. It is said to force well, which is an important quality; for from want of solar heat in this climate, all the clingstone peaches acquire their flavour most perfectly in a forcing-house. It is an abundant bearer, and according to Forsyth, well adapted for tarts.

"It is remarkable, that although it appears from an old catalogue of the Chartreux garden, that the Catharine was long since sent to France, under the name of La Belle Catharine, no trace of it is to be found in the great French works on pomology.

"In the catalogue of fruits cultivated in the garden of the London Horticultural Society, the Green Catharine peach of the Americans is said to be the same as this; but this is a mistake, that variety having globose, not reniform glands, (and being also a freestone, &c. Auth.)

"The Incomparable peach is very nearly the same as the Catharine, but is distinguished by its higher colour, both inside and outside, and by its flavour being inferior. On account of its superior beauty, it is the most cultivated of the two.

"Leaves crenate, with reniform glands, very deep green, somewhat puckered or crumpled on each side of the midrib; flowers small, reddish; fruit large, round, either depressed or pointed at the apex in which respect it is very variable—towards the base the surface is uneven; colour a beautiful red next the sun, marbled and dashed with darker shades, pale yellow next the wall, where it is sprinkled with many red dots; flesh very firm, of a deep crimson next the stone to which it strongly adheres—towards the outside very white, becoming after having been gathered a few days tinged with yellow, and having then an abundance of juice, and very rich and sweet flavour; stone middle-sized, roundish-oval, very slightly pointed."

ADMIRABLE. *Pr. cat. Duh. Roz.*
Admirable. Pr. cat. 25 ed. No. 102.

The flowers of this tree are small, and of a purple rose colour; the fruit is thirty lines in diameter, and twenty-seven in height—it is divided by a shallow longitudinal groove, and terminated at the summit by a very small nipple; the skin is velvety, of a light yellow hue on the shaded side, and touched with bright red next the sun; the flesh is white, except around the stone, where it is tinged with pale red—it is rather firm before it attains to maturity, but when perfectly ripe, it becomes melting, with abundance of sweet juice, of a vinous, rich, and excellent flavour; the stone is small in proportion to the size of the fruit, which is one of the finest peaches, and ripens about the middle of September; the tree is very productive, but it is found in France to require more attention than most others to the pruning, because it often has some weak and feeble branches, and it sometimes loses very large ones, being qnite subject to the *cloque,* a malady which is attributed to the cold winds.

NIVETTE. *Pr. cat. Duh.*
Nivette veloutée. Duh.
La Nivette, or La Veloutée. Dic. d'Agric.

The flowers of this tree are of medium size, and eleven to twelve lines in breadth; the leaves are furnished at their base with rounded glands; the fruit is large, and sometimes thirty lines in diameter, and of the same height—it is divided by a longitudinal groove of no great depth, one side of which is far more projecting than the other, and it is terminated at its summit by a very small nipple; the skin is almost wholly of a yellowish white colour, and only occasionally tinged with some red veins on the sunny side—it separates pretty easily from the flesh, which is mostly white, but reddish around the stone, and this redness penetrates considerably into the fruit; it is somewhat firm before it attains to perfect maturity, but then becomes very melting, and abounds in juice of a vinous, sweet, and excellent taste, sometimes, however, it is a little bitter; the stone is proportionate to the size of the fruit, of a pretty regular oval form, although a little narrower at its base than at its point—it is eighteen lines in length, by an inch in diameter. This peach, which is one of the most beautiful and one of the best freestone varieties, ripens at the end of September.

RURAL ECONOMY.

(From the New England Farmer.)

Report of the Committee for awarding Premiums on BUTTER.

Boston, December 10, 1830.

The Committee report for the gratification of those who contributed to raise the fund to be given for a premium to the best butter, that in collecting a number of competitors, and many of them from distant states, one object at least, seems answered. This offer also brings to the market a large quantity of butter, which, in being made for the premium, seems to assure the purchaser that the owners had exerted their highest skill, and had bestowed their best attention in the making and laying down what they considered worthy of so large a premium. The Committee award without hesitation, and with perfect unanimity, the first premium of *one hundred dollars* to Mr. Henry Sprague, of Charlton, Worcester (Mass.) for six kegs of butter with flat hoops, and they award with equal unanimity, though with more hesitation, the second premium of *fifty dollars* to Mr. Moses Newell, of West Newbury, (Mass.) Several other entries were so near in quality to Mr. Newell's that it required more comparison and deliberation before deciding upon this premium, than was requisite in awarding the first. The butter of Mr. Newell, though in only four tubs, was still decidedly different in each, particularly in the quantity of salt used. The inequality of several jars or kegs of many of the entries made the task of deciding difficult,—some butter, to which no premium was given, might probably have been selected better than Mr. Newell's, but the adjoining keg of the same entry would neutralize its excellence as a lot. Mr. Tuttle, of Westminster, Vt., had his butter laid down in a mode new to the committee; it was packed in neat soap stone boxes, which were of clean appearance and apparently calculated to preserve a uniform temperature, though they may not be so entirely secure at the cover, as wooden boxes; whether they be a real improvement can be ascertained only by experience. There were in the whole thirty-five entries for the premium, from Pennsylvania, New York, New Hampshire, Massachusetts, Vermont and Maine. The butter for the most part was well made and clean in its appearance, and made with different objects, some of it being for present use and some with a more particular view to its perfect preservation for a great length of time. One parcel, which was very sweet, though somewhat salt, was made by the owner "for the use of the fishermen to take on their voyages next season." It will probably retain its excellence, and though a premium for butter intended to be used one year from the time it is made, would be highly useful, and give excellent butter to the navy and shipping, the committee considered this premium, as intended for the best market butter for winter consumption, without any reference to the economical arrangement of his dairy, the food of the cows, or even the stock. Dr. Warren, imported some butter from Montreal, (L. Canada) purposely for exhibition; it was certainly very excellent, not superior, however, in the opinion of the Committee, to that to which the premiums are awarded.

One entry from Pennsylvania was made, but the state of the winds and weather unfortunately prevented the arrival of the butter, which the Committee the more regret, as that state is so justly celebrated for its success in this department of agriculture.

Respectfully submitted.
BENJ. GUILD,
J. C. GRAY,
I. THORNDIKE, Jr.
I. P. DAVIS,
BENJ. POLLARD.

We have subjoined a few notes taken from the written accounts which generally accompanied the several lots of butter.

No. 5.—Mr. Newell's butter, which took the second premium of *fifty dollars,* was made from the cream of 14 cows, since September 25—there were about 80 lbs. more made of similar quality, which was not entered. The cows had common grass feed only. The butter was packed in old firkins, (which are considered better than new ones) in layers of about two or three inches deep, with a sprinkling of fine salt between each layer. The butter is thus more easily taken up as wanted for use.

No. 11. Mr. *Weeks's* butter was made from Aug. to October. Mr. W. has the morning's milk skimmed in 12 hours, the evening's in 24 hours from the time it is taken from the cow; the cream is churned every other day: the butter salted with Liverpool, ground; laid down solid; nothing added, except a little brine: a waxed bag was fixed between the butter and the wood.

No. 12. Mr. *Crosby's* mode of making is by skimming the milk while perfectly sweet, churning soon, *not waiting for large churnings;* when "the butter has come," he turns off the buttermilk, and then churns the butter again, in order to beat out the buttermilk well, without the warmth of the hand: in each of the two successive days, he works it over thoroughly, and then packs it down in tubs previously soaked with brine made clean by boiling and skimming. Mr. *Crosby* has repeatedly taken the premium for the best butter exhibited at the Brighton and Concord Cattle Shows.

No. 17. Mr. *Prince's* butter was made at his farm on Merino Island in Winipiseogee Lake, N. H. *It* was made between the 10th of August and *19th* of November, from cows mostly of the Alderney breed. His pastures are newly cleared land; though his cows have been freely fed with pumpkins. His dairy room is neat and convenient, and attached alongside of an icehouse. The butter as soon as packed is put into the icehouse. Less than the usual quantity of salt is used; no coloring; but a small quantity of saltpetre and loaf sugar is added.

No. 24. Mr. *Eager's* butter was made from 17 cows, since the 15th of September. The cream was gathered in seven weeks, from the milk, after sitting from 4 to 6 meals, which was varied according to the state of the weather, so that the cream might always be perfectly sweet. It was immediately churned after being skimmed; and from 5 to 6 lbs. pure fine salt put into 100 lbs. of butter, which was the only ingredient made use of.

No. 28. Mr. *Brigham's* butter was put down before the 25th of November, and intended for fishermen to take out to sea the next season. It was prepared with salt, saltpetre, and sugar, which has for a number of years enabled the butter to endure their trips without injury.

No. 29, which was of very fine quality, was entered by Doct. *Warren* of this city, for exhibition only, and was procured of *H. Gates*, Montreal. It was made by a yankee farmer of the name of *Hastings*, from Vermont, who now resides near Montreal, and has a dairy of 50 cows—the 54 lbs. exhibited was the product of a single churning, in November.

No. 34. Mr. *Haines's* butter was made from the common breed of cows in Pennsylvania, with about one in ten of the prime full bred Alderney breed, so that the butter is 10 per cent. Alderney, which Mr. H. thinks makes a perceptible improvement. Their feed has been from a common pasture, with a large proportion of white clover. The pasture has been frequently top dressed, but not ploughed for more than twenty years.

Mr. *Sprague's* butter, which took the *first* premium, was sold to Messrs. Harrison Gray Otis, E. Codman, D. S. Ingraham, T. B. Coolidge, Mr. Hancock, and Mr. Barker, keeper of the Marlborough Hotel.

Mr. *Newell's* lot which took the *second* premium, was sold to Messrs. George Hallet, Ebenezer Rollins, and Ignatius Sargeant.

We have subjoined an account of the different entries, numbered as entered, the quantity and the prices they brought at auction. Some of the lots were disposed of at private sale.—EDITOR.

No.	*How packed.*	*By whom entered.*	*Where made.*	*Quantity.*	*Price per lb.*	*When made, &c.*
No. 1,	7 tubs	Calvin Sanger,	Sherburne, Mass.	314	19 cts.	
2,	12 '	Calvin Howard,	Fitchburg, Mass.	327		
3,	6 ' & 5 jars	Luke Bemis,	Barre, Mass.	309	21 to 22	between June and October
4,	7 '	Oliver Crosby,	Atkinson, Me.	470	13 to 14	' July and Nov.
5,	4 '	Moses Newell,	West Newbury, Mass.	303	30 to 32	since September 25.
6,	16 '	Fitch Winchester,	Southborough, Mass.	726	19 to 20	no written acc't forwarded.
7,	5 ' & 1 box	Ichabod Everett,	Billerica, Mass.	333	18 to 24	
8,	11 '	Luther Chamberlain,	Westborough, Mass.	424	25 to 30	
9,	3 '	Jonathan Wait,	Whately, Mass.	300	17	
10,	6 '	A. U.	W. Vt.	390	17	no written acc't forwarded.
11,	6 '	J. W. Weeks,	Salisbury, Vt.	318	17 to 20	from August to October.
12,	6 '	Michael Crosby,	Bedford, Mass.	300		
13,	12 '	Abijah Nurse,	Rutland, Mass.	317	21 to 25	no written acc't forwarded.
14,	3 '	Nathan Cushing,	Woodstock, Vt.	348	16 to 17	no written acc't forwarded.
15,	7 '	Nathan Brigham,	Lempster, N. H.	317	22 to 25	
16,	11 jars	Oliver Clark,	Norwich, Mass.	300		in 9 days from 46 cows.
17,	10 tubs	John Prince,	Winipiseogee Lake, N. H.	530	18	betw'n 15 Aug. & 19th Nov
18,	10 '	Hiram Ranney,	Westminster, Vt.	450	15 to 15½	no written ac't forwarded.
19,	10 '	H. Herrick,	Reading, Vt.	550	18 to 20	
20,	6 '	R. Converse,	New Braintree, Mass.	390	13	
21,	6 '	D. Hunter,	New Braintree, Mass.	331	20 to 21	
22,	22 '	Cloud Harvey,	Barnet, Vt.	1300	22	
23,	12 '	Henry Sprague,	Charlton, Mass.	622	25 to 36	
24,	7 '	William Eager,	Northborough, Mass.	325	25 to 26	
25,	4 '	A. J. K.		354	16 to 19	
26,	6 '	William Oliver,	Barnet, Vt.	322		
27,	6 ' & 1 bbl.	Wm. Loveland,	Norwich, Vt.	330	14½ to 16	
28,	6 '	Otis Brigham,	Westborough, Mass.	300		
29,	1 '	Horatio Gates,	Montreal,	54		entered for exhibition only.
30,	6 '	B. & J. Lynde,	Guildford, Vt.	394	17½ to 18	no written acc't forwarded
31,	6 '	Wm. T. Smith,	Saratoga, N. Y.	317	17 to 18	
32,	6 ' stone jrs	Wm. Tuttle,	Westminster, Vt.		17½ to 18	
33,		Wm. P. Endicott,	Danvers, Mass.			not received.
34,	6 '	Reuben Haines,	Philadelphia,	336		arriv'd too late for premium
35,		Walter Bigelow,	Worcester, Mass.			not received.

(From the New England Farmer.)

DISEASE IN CATTLE.

MR. FESSENDEN.—Since my return from Boston, a disease, or epidemic, has afflicted my blooded calves. On the morning of the 28th November, on going into my barn, I discovered a fine calf, ¾ blood, to be in distress and frothing at the mouth, and my first impression was that she was choked with a potato. I immediately sent for a man who had had some experience with diseases affecting cattle; but I soon discovered the next calf, which was half blooded, affected in the same manner. I found they had severe spasms and were so much distressed as to make them bellow. They had a great degree of weakness in the limbs, and a loss of appetite. I soon discovered that another fine half blooded bull calf was affected in some measure, as he refused to eat. I then resorted to the last volume of the New England Farmer, (the only one I possess) and there looked for the disease and remedy; but I could not find any thing that seemed to apply. I found the disease of *Hoven* which was produced by such causes as it did not appear reasonable could be produced at this season of the year, but still I discovered an apparent disposition to vomit the food which they had eaten. I therefore made a solution of saleratus, and by the assistance of a bottle, gave to the two first, a portion, which caused violent spasms, and in five or ten minutes succeeded by a profuse discharge from the stomach, which very soon gave relief. The next morning I found the bull in as bad or worse state than the heifers; I applied the same solution and produced the same effects, and which proved an effectual cure. Being in want of information, I apply to you, Sir, to give me the name of the disease, whether it was an Epidemic, Hoven or Poison—and if this is worthy of a place in the New England Farmer, and will be of any public utility, I hope some of your subscribers may be enabled to give the desired information, which will be conferring a favor on

Yours, very respectfully,
AARON TYLER.

Bath, Me , Dec. 4th, 1830.

A hank of silk, produced by a single worm, was lately reeled in the presence of several gentlemen, in Bolton, which was 365 yards in length, and, on being weighed was found to be the texture of 1,500 hanks in the lb. A single lb. of this silk would reach 716 miles. The worm was only seven days in spinning the hank, consequently produced at the rate of 52 yards per diem.

MISCELLANEOUS.

GRAPES OF THE SECOND GROWTH.

Among the curiosities of the season has been mentioned a second growth of grapes in Charleston, S. C. which arrived at maturity. We were yesterday presented with grapes of the second growth, perfectly ripe and of delicious flavor, from the garden of Edward Probyn, Esq. of this city. They were taken from a vine about 25 years old, of the species called Royal Muscadine, from which grapes of the first crop have been gathered, as were wanted, from the 3d of September to the present time. We have before us, though we cannot promise how long they will continue before us, a few fine clusters of this description, which were gathered yesterday. Those of the second growth are not so large, but in other respects are about equal to the former.—It is believed that such an instance of second growth maturity was rarely if ever known in this city.

[*N. Y. Jour. Com.*

CLOTHES

Keep the body warm in consequence of the air which they infold within them—atmospheric air being a non-conductor of heat. On this principle it is, that light, spongy substances, such as furs and down, afford the warmest clothing.

COLD.

By mixing very quickly four parts of muriate of ammonia, reduced to powder, with three parts of light, fresh snow, the mercury will fall 70 degrees below freezing point of Farenh. or 38 below Zero. A solution of equal parts of muriate of ammonia (sal ammoniac) and nitrate of potass, or nitre, makes a convenient mixture, that will freeze ice cream in the middle of summer. The mixture should be put in tin or copper moulds.

Six or eight pounds of the muriate of lime, with 6 or 8 pounds of fresh snow, mixed in a glass, tin or copper vessel, will produce a very great degree of cold. In all attempts to produce ice, the salts must be reduced to powder and the vessel thin, and just large enough to contain the ingredients, and the experiment performed as quickly as possible, taking care to stir the mixture with a glass or wooden rod.

RECIPES.

(From the Boston Centinel.)

CURE FOR THE GOUT.

Northampton, Oct. 2, 1830.

Messrs. Editors,—Having long been a martyr to the gout, I have at length found a very simple remedy, which, if persevered in, I am persuaded will cure the most inveterate cases. I feel so grateful for the relief which I have experienced, that I would beg leave to communicate my means of cure through your paper.

Hearing Harrowgate Salts highly spoken of, I resolved to try them, and commenced by taking a teaspoonful dissolved in water, an hour after breakfast, and the same after dinner. I soon found a considerable mitigation of the symptoms, and by continuing the use of the salts, I am now quite free from the complaint. Whenever I experience that peculiar sensation of the stomach which precedes an attack of the gout, I have immediate recourse to the salts, which invariably averts it.

Your obedient servant, OTIS PRICE.

HYDROPHOBIA.

Three cases of the cure of this formidable disease by friction with mercurial ointment, one of them 40 days after the bite, when slight symptoms of the disease, attended with spasm, had become manifested, are described in the Bib. Univ. Mars. 1830.

THE FARMER.

Baltimore, Friday, Dec. 17, 1830.

The following letters from two of our most respectable subscribers in Virginia and Pennsylvania, are published with the double view of eliciting the opinions of others, and of showing the propriety of some of our changes in the contents of the Farmer. At the same time we will not affect, what it is not our nature to feel, indifference to the approbation of our patrons. The propriety of omitting the "Ladies' Department," suggested by our friend at White Post, has been under consideration from the commencement of our editorial career; and though we have not come to a final decision, we assure our respectable correspondent, that his advice will have great weight with us. Should we conclude to make this change, we assure the ladies, they shall lose nothing by it—it is believed that we can render them more real service while in the fields, orchards, and gardens, with their husbands, and in our occasional dropping in at the kitchen, with our precepts on Domestic economy, than they ever obtained from the Ladies' department. We take the present occasion to solicit suggestions from our friends on the management of the Farmer, and assure them their advice will not be deemed intrusive.

White Post, Frederick Co., Virginia,
December 1, 1830.

Mr. Smith:

If it is a privilege permitted your subscribers to approve or condemn your editorial course in a becoming manner, one of them will have the pleasure in behalf of the true character of the Farmer, to say how much he approves some of your late amendments, and in so saying he is very sure of truly representing the sentiment and interests of a great majority of your friends. The American Farmer as a national work has no doubt many to please, but principally to consult one great interest—and that the farming. Although that class of your subscribers take no immediate interest in any other than the improvement and cultivation of the soil in the production of wheat, corn, and other grains, vegetables, &c.—and the raising of a variety of useful domestic animals—they are far from wishing a monopoly of your pages, but take a cheerful secondary interest in the success of the planters and manufacturers whose prosperity is interwoven with the best interests of the grain growers, &c.—the planter as furnishing the material, and the manufacturer in preparing it for the use of the farmer and others, more especially in the production of cotton and wool.

Foreign and domestic politics or history, unconnected with agriculture, we conceive should never have a place in the Farmer, whose pages belong exclusively to the interests of the soil in some shape or another. In adhering as closely as possible to the title of this eminent work, a fund of materials will never be wanting to continue the great reputation it acquired under the former editor, or establish it the more firmly through the greater devotion of the time and talents of its present director. A small, but well selected library—foreign and domestic publications—with well chosen addresses to the many agricultural societies would afford a constant supply of interesting, scientific, and elegant reading. Reports of societies and the communication of facts on the numberless interests springing out of agriculture, would form the practical and most useful part—without the least invasion of other publications on the various subjects of science and knowledge. We have admired, and so have our wives, the interesting matter in the Ladies' department—but so many and cheap are the publications on that part of domestic management, it is submitted whether it might not be better filled by something more nearly related to the main subject. When poetry is thought advisable, would not a translation of the Georgics of Virgil form an interesting page? In short, Mr. Editor, will it not be well to stick to the text as closely as possible, when a valuable and beautiful variety can be displayed. I must now beg you will pardon this attempt to throw in my mite for the benefit of the farmer, when I conclude by expressing a serious belief that your Journal is destined with the proper application of even moderate talents, to be an honour to its Editor, and a blessing to our common country. Your friend, and

Constant Reader.

Bolton Farm, near Bristol, Pennsylvania,
Dec. 9, 1830.

Mr. Smith:

Sir,—Your proposed exclusion of politicks from the American Farmer, will be I presume particularly pleasing to Pennsylvania farmers, and will I trust promote the circulation of it among us. In this state, of late years, the objects of professed politicians of all parties, have been in so many instances obviously personal, that our farmers are awakening from the deception into which they have been led by pretenders to patriotism, and are becoming more sensible of the importance to themselves, of such an education, as will secure their equal participation, in the blessings of knowledge, from which they have been heretofore excluded, by the confinement of science and the arts, to the walls of cities, to universities and academies; there has yet been *no middle way* between the difficulties, expenses and dangers of these, (to the sons of farmers) and our *Pennsylvania road-side schools,* the resorts generally, of rude, vicious, and vulgar boys and girls, in which there is neither system nor discipline. The proposed modern improvements in our plans of education *for the country,* have received much attention from your predecessor, and now, your exclusive devotion of the Farmer to rural interests, with the Annals of Education, published at Boston, will afford two periodical papers, to which we may turn for the most interesting subjects to our country, unpolluted by party politicks, and designed to benefit and to bless the great mass of our rural population.

A. M.

Sunflower Oil.—We recur to this subject again for the purpose of answering the numerous enquiries of our correspondents relative to the culture of the sunflower, the quantity and quality of the oil expressed, its uses and value. The cultivation of the sunflower differs in no respect from that of corn, and the soil adapted to the latter is proper for the former. The sunflower thrives in all our various climates. Under proper cultivation and with a medium soil, it yields from 60 to 70 bushels to the acre. The machinery for crushing and expressing, will cost about $300. One bushel of the seed will yield 3 quarts of cold, and one of hot pressed oil.

The uses to which this oil is adapted are various. It is equal to olive oil for table use, and superior in many important respects to sperm for lamps, while for paints and machinery it is well adapted to supersede the oils now used in them. For burning in lamps, the sunflower oil possesses one advantage, which has been an object of deep solicitude ever since sperm oil came into use—it has no perceptible smell; hence sick persons and others, to whom the smell of sperm oil in lamps is so offensive, can use the sunflower oil with perfect freedom. Its advantages in this respect, have been fully tested in Philadelphia, where it is recommended by some eminent physicians, and in constant use by their patients. It has another important advantage over sperm oil—it affords about one third more light, that is, sunflower will last one third longer than sperm, both while burning affording the same quantity of light. As to a market for the seed and the price, at present there is none of either. At present Mr. Barnitz, the intelligent inventor of the new process of crushing and expressing the seed, recommends the producer to crush the seed and express his own oil There is no doubt but oil mills will soon be established, at which the seed may be sold, for this oil is too important an addition to our resources to be lost. Charles A. Barnitz, of York, Pa. will give any information that may be required.

Steam Mills.—A much respected correspondent in North Carolina earnestly solicits information on the subject of the cost of steam mills for grinding corn, &c. He says that in many sections of North Carolina, the mill streams do not supply the demands of the neighbourhood; either for meal or lumber. We have also personal knowledge of this fact, and have no doubt that, either steam mills or those driven by horse power, would be of immense advantage both to the planters and those who may build them in that country. Streams that in the wet season carry away the mill dams by the flood, in the dry season afford no water for the mills, and the consequent inconveniences are very great Our correspondent thinks, that a remedy for the evil might be found in steam mills that would grind a hundred bushels of corn into good meal in 12 hours. One of this power would supply the deficiency, it is presumed, in most cases during the dry season; and the same power, when there was less work to do in wet seasons (in consequence of the other mills going) would saw plank enough to supply the demand in that article, probably a thousand feet of inch boards from the pitch pine logs, in the same time. We give the conclusion of our correspondent's letter in his own words:

"Fuel would in most cases be no expense, indeed, if there was much sawing the refuse lost in squaring the logs, and which would otherwise be in the way, would keep the mill a-going. The escape steam might be very profitably employed in steaming food for all kinds of stock, and, if desirable, in cooking for the family. Feeding stock thus, their food would be far more valuable, and much manure might be made at the place. The mill might be placed convenient for hauling the manure into the fields, and also to the timber and its custom. Its being convenient to the woods, would afford great facilities for hauling in leaves to litter the stock and increase the quantity of manure. The ashes of the furnace would be a valuable addition to the manure pile, and perhaps even the sawdust might be advantageously mixed with it, or thrown into the pens to imbibe the moisture. This manure laid plentifully on the contiguous lands, would raise large crops of sweet and Irish potatoes, squashes, pumpkins, turnips, beets, carrots or parsnips, and many other vegetables which would be fine for steaming and mixing with the meal of the toll corn, to feed the hogs and all the other stock. They would likewise be luxuries for the table. When the land within a moderate distance of the mill was well manured, and the timber in its immediate vicinity used, it might be removed to another place, where the timber was convenient and the land wanted manuring. Will some of your friends among the mechanics, inform us for what sum they will furnish an engine of simple construction, that will do the work required, and for what additional sum they will furnish all the necessary fixtures for setting the stones and saw to work, so that when we get them nothing is to be furnished but the stones, the masonry, and the wood work? Also, the kind of engine, and the manner of gearing, size of stones, and any other information they may think needed, for we are very ignorant of these things, as you perceive by our writing. The simplest engine and machinery are desirable, as being least likely to get out of order.

"Would any smaller power do for sawing?

"We should also be glad to see the prices, &c. of smaller engines, &c. that would grind intermediate quantities, between one hundred bushels, and twenty-five bushels, of corn, in twelve hours, with such information as would enable us to judge of the advantages of purchasing."

LARGE POTATO. We have before us a sweet potato of the yam kind, which measures twenty and a half inches in circumference, and eighteen and a half in length, and weighs nine pounds and a quarter. It was raised on the plantation of Mr. Law, in Liberty county, Georgia, and sent to this city by James P. Heath, Esq. Both the size and weight must have been considerably diminished by evaporation.

VEGETABLE CURIOSITY.—The editor of the American Farmer has in his possession a most beautiful *twin watermelon*, which he obtained in the early part of the last season, and which yet remains perfectly fresh and green. It does not appear to have lost any thing in weight, nor is there the slightest appearance of approaching decay. It has lain on a shelf in the office till the present time, and been handled by some hundreds of persons. When first received it was badly scratched, and the outer skin had been worn off the sides by the continual removal from the shelf; but all these have been healed over in the same manner as scratches on young melons on the vine are healed.

Farmers desirous of improving the breed of their dairy and stock cattle, are requested to notice the advertisement of a Bull which has been purchased by Col. Powel, and brought into our state and immediate neighbourhood; affording an opportunity to the Maryland agriculturists of securing the services of an animal equal, if not superior to any in the United States.

THE COTTON MARKET.—A correspondent suggests, that the planters withhold from market 100,000 bales of cotton, as a means of raising the price of that article in the foreign markets. He thinks more money would be obtained for the residue of the crop, than will be from the whole in the usual way. The plan would doubtless succeed, if it could be carried into effect; but that is one of the impossible possibilities.

GIGANTIC FLOWER.—The most important discovery throughout our journey was made at Sumatra; it was a gigantic flower, of which I can hardly attempt to give you any thing like a just description. It measured across from the petals rather more than a yard, the nectarium was nine inches wide, and as deep, and estimated to contain a gallon and a half of water; and the weight of the whole flower was fifteen pounds!—The Sumatran name of this extraordinary production is Petimun Sikinbili, or Devil's Siri (beetle) box. It is a native of the forest. This gigantic flower is parasite on the lower stems and roots of the Cisus Augustifolia of Box, and of a deep dusky red. The flower when fully expanded is in point of size, the wonder of the vegetable kingdom; the breadth across from the top of the one petal to the other is three feet. The cup may be estimated capable of containing twelve pints; its inside is of an intense purple, and more or less densely yellow, with soft, flexible spines of the same color. The fruit never bursts, but the whole plant gradually rots away, and the seeds mix with the putrid mass.

[*Memoirs of Sir J. Roffles.*

Prices Current in New York, Dec. 11.

Beeswax, yellow .20 a 22. *Cotton*, New Orleans .11½ a .13½; Upland, .9½ a .11½; Alabama, .11 a 12½. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax 12 a 16; *Flax*, American, 7 a 8.—*Flaxseed*, 7 bush. clean 10.62½ a 10.75,—*Flour*, N. York, bbl. —— a 5.12½; Canal 5.19 a .5.37½ Balt. Hwd. st. 5.37½ a 5.50; Rh'd. city mills 5.69 a 5.75; country, 5.12½ a 5.25; Alexand'a, 5.12½ a 5.25; Fredericksburg 5.12½; Petersburg, 5.12½ a 5.25; Rye Flour, 3.56 a 3.62½; Indian Meal, per bbl. 3.31 a 3 50; per hhd. 14.50 a 14.75. *Grain*, Wheat, North, —— a 1.06; Vir. .98 a 1.04; Rye, North, — a 73; Corn, Yel. Nor. .63 a 64; Barley, 77 a 78; Oats, South and North, .27 a .36; Peas, white, dry, 7 bu. –. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.62½ a 8.00; prime 5.06 a 5.25; cargo 4.00 a —— Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 9. a .9½; Pork, mess bbl. 18.75 a 14.00; prime 9.50 a 10.00; cargo ——.

AGRICULTURAL WAREHOUSE AND SEED-STORE.

The Subscriber desires to express his grateful acknowledgments to a generous public, for their liberal patronage,—with assurances, that no exertion on his part shall be wanting, in future, to render his establishment an advantage to the public, which has been considerably increased during the present year. He is the only Agent in the city for Gideon Davis, and has on hand a full assortment of his improved Patent PLOUGHS—the increased demand for which, proves the great perfection to which he has brought that useful implement; and he is at all times prepared to furnish the CASTINGS for said Ploughs, to supply the place of those worn out.

He has also on hand, a variety of Improved PLOUGHS suited to the variety of soils; and left-handed ploughs—together with a general assortment of IMPROVED AGRICULTURAL IMPLEMENTS, and wove wire to suit the various purposes for which that article is used. The Subscriber's Patent CYLINDRICAL STRAW CUTTERS, he believes, have never been surpassed in any country; and desirous to bring them into more general use, he has reduced the price $5.—He will also receive orders for THRESHING MACHINES, constructed on the Spike principle, which he believes the best now in use. Early application should be made by those wishing to procure them for the coming season, as it requires time to procure suitable materials; and as machines of this description built in a hurry seldom give satisfaction; he has one on hand finished.

HORTICULTURAL.

In store, a general assortment of the Messrs. Landreths' GARDEN SEEDS, at wholesale and retail—his whole stock being the growth of 1830.—He can furnish to order from the Messrs. Landreths' extensive Nursery, Fruit and Ornamental TREES, BULBOUS ROOTS, FLOWERS, &c. &c. which would receive careful attention in their selection, packing, &c.

Likewise in store,—Orchard Grass, Herds, Timothy, Clover and Lucern SEEDS.

☞ All communications by mail (post paid) will receive prompt attention. J. S. EASTMAN,

No. 36 West Pratt street, Baltimore, between Hanover and Charles streets.

THE HIGH BRED IMPORTED IMPROVED DURHAM SHORT-HORNED BULL BOLIVAR

Will be at Franklin, on the Franklin Turnpike road, about four miles from Baltimore—during the months of January, February, March and April next.

At Epsom farm, near Towsontown, seven and a half miles from Baltimore, on the York Turnpike road, during the months of May, June, July, and August next; and at Franklin, in September, October, November and December.

Terms.—Five dollars, to be sent with each cow.

This Bull was selected by Mr. Coates, the keeper of the Herd Book, without limitation of cost, and was highly valued by Colonel Powel, who considered him in form, points, and pedigree, equal to any animal to be had in Great Britain.

Bolivar is red and white, was bred by J. Whitaker, Esq. England. The singular neatness of his shoulders, the straightness of his back, the width of his loin, the smallness of his head, neck, and offal, the quickness of his gait, together with the well known character of his family as dairy stock, render him one of the most desirable males for improving our neat cattle that can in any country be found.

The committee on Neat Cattle at the exhibition of the Pennsylvania Agricultural Society, reported as their opinion, that Bolivar was "*the handsomest and best Bull that has ever been exhibited at any of our shows.*"

Bolivar is at the Epsom Farm at present.

GARDEN SEEDS, &c.

The Subscriber has on hand at the office of the Farmer, a full assortment of fresh garden Seeds, among which are some rare kinds, such as Swiss Chard, Chick Pea, fresh Cuba Tobacco, Cow Cabbage, &c. Also Fessenden's New American Gardener, price $1, Prince's Treatise on the Vine, $1.50, do. on Horticulture 75 cents, Hind's Farriery $1, Mason's Farriery, new edition $1.50. GIDEON B. SMITH.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—Howard street flour has been rather dull this week and a slight decline has taken place, sales having been made from stores at $5. The wagon price was rather fluctuating yesterday, but generally $4 67½. A slight decline will also be noticed in wheat. Corn, rye and oats remain the same. Beef on the hoof continues to improve, and drove pork has advanced to $5 a $5 25.

TOBACCO.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 412 hhds. Maryland; and 9 hhds. Ohio; -- hhds. Virginia; total 421 hhds.

FLOUR—best white wheat family, $5 25 *a* 5.75—super. Howard-street 5.00 *a* ——; city mills, 4.75—Susquehanna, 4.87½ *a* 5.00; CORN MEAL, bbl. 2.25 GRAIN; red wheat, 95 *a* ——; white do. 1.00 *a* 1.05—CORN, old white, 55 *a* 56-old yellow 56 *a* 57-new white .50 *a* .52--yellow 52 *a* 54-RYE, .57 *a* .59-OATS, .29 *a* 30. BEANS, 90 *a* 1.00-PEAS, 50 *a* 60-CLOVERSEED 5.50 *a* 6 00 TIMOTHY, 2.00 *a* 2¼.——ORCHARD GRASS, 1.25 *a* 1.50—Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, 62½ FLAXSEED 1.18 *a* 1.20-COTTON Va. 10 *a* 10½-Lou. 11½ *a* 13½—Alab. 9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½—Upland 11 *a* ——WHISKEY, hhds 1st p — *a* 27½; in bbls 28½ *a* 29—WOOL, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20–crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.–HEMP Russia, ton, $220 *a* ——; Country, dew-rotted, 5.c.— lb. water-rotted, .6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.12½, *a* ——-No. 2, 5.50 *a* ———No. 3, 8.83½ *a* 3.50; BACON hams Balt. cured 10c.-Feathers, 35 *a* ——Plaster Paris, cargo price per ton, 4.25 *a* – —ground, 1.25 *a* 1.50 bbl.–Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.25 *a* 4.75—Pork on the hoof 5.00—*a* 5.25,—Pine Wood, by the vessel load, 1.75. Oak, 3.00 *a* 3.25—Hickory, $4.25 *a* 4.50.

EDITED BY GIDEON B. SMITH.

published every Friday, (at the old office, basement of Barnum's City hotel,) by I. IRVINE HITCHCOCK & CO. *on the following*

TERMS.

1. Price five dollars per annum, due at the commencement of each year of subscription.
2. Subscriptions are in all cases charged *by the year*, and never for a shorter term.
3. When once sent to a subscriber, the paper will not be discontinued without a special order from the subscriber; and then not till the end of the year of his subscription that shall be current at the time of receiving such order.
4. The risk of mail in the transportation of both the paper, and of bank notes sent in payment for it, is assumed by the publishers.
5. Advertisements connected with any of the subjects of the American Farmer, inserted *once*, (never more) at one dollar per square.
6. All letters concerning this paper must be directed to the publishers. They must be free of postage, except communications intended for publication, and letters transmitting money.

Printed by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the Virginia Herald.)

At a meeting of the Fredericksburg Agricultural Society, at the Indian Queen Tavern, Nov. 26th, 1830, on motion, it was

Ordered, That the President be requested to furnish, for publication, a copy of the Address this day read to the Society.

Extract from the minutes,

Wm. F. Gray, *Sec'ry.*

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ADDRESS.

Brother Members of the Agricultural Society of Fredericksburg, Va.

Being one of those sanguine men—honored by the goodenoughs of our race with the title of "visionaries," who never despair of a good cause, while (as our nautical brethren say,) "there is a shot in the locker," I avail myself once more of the opportunity presented by our fall meeting, to address you on the particular business of our Society, as well as in relation to the general interests of agriculture. Were I to attempt to say even the half of what the latter subject requires, the entire day would not suffice for its utterance. I will, therefore, endeavor to confine myself within the limits called for by the occasion; although even under the influence of this check, such is the copiousness of the subject, that I fear some of my remarks may appear more digressive than they need be. Should any of my hearers incline to think so, I hope they will suspend their opinions—at least until I fail in my applications.

Greatly should I rejoice, were it in my power to congratulate you, in regard either to our present or future prospects. Much sincere pleasure would it afford me, could I refer, by way of encouragement, to some clear and decisive evidence, that our condition—since the first organization of our Society, had been distinguished by continually progressive improvement in our modes of culture; in the amelioration of our soil; in the increase of our productions: but above all, in our habits of economy and rural thrift. But, alas! on which ever side I turn my eyes in search of some facts to justify the eulogium I am so desirous to pronounce, nothing, or worse than nothing, meets my anxious vision. It is certainly true that I might say, there is some obvious improvement in our cultivation; but I could not add, that there is a corresponding improvement in the processes of accumulating and applying manures; without which, to cultivate our lands better, will only be to wear them out faster; since the greater the quantity of produce taken from the soil, the sooner it will lose the power of producing, unless we constantly aid its natural powers and efforts by artificial means. In this truly consists the great art and skill of the agriculturist; for, all permanent improvement in husbandry depends upon the increasing capacity of our lands to produce well—brought about by the judicious manner in which we prepare them for yielding more and more of what we want, and the returns we make to them of *their appropriate food*, for such portions of *our food* as they yield to us. So universally true is this fact, that we may venture to assert, no farmer or planter ever yet failed to thrive, if he always acted upon this principle, and made good use of his income; no matter what fluctuations may occur in prices—what unfavorable seasons may happen—what ill judged political regulations may occasionally check or mar his efforts to improve his fortune. It is certainly true, as the experience of us all has proved, that the impediments to agricultural prosperity, arising from the latter cause, *may be such,* as incalculably to retard, if not to prostrate it entirely. I will refer to those so often, so bitterly, and so justly, (as I believe,) complained of in various parts of our country, under the title of "Tariff Laws," than which a greater legislative curse could hardly befal any country. But I make the reference, not for the purpose of meddling at present any farther with this hackneyed theme, than to call your attention to *another species of tariff,* the ruinous effects of which, although not quite so obvious, as far surpass those of any anti-commercial regulations ever imposed by our goveroment, as a ton weight would surpass an ounce in sinking a man to the bottom of the ocean, were such a burden once imposed upon him in that element. I mean the self-imposed tariff of our sensual indulgencies—our luxury—our extravagance in dress, equipage, furniture, living. In a word—the tariff of increased expenditure over and above the revenue necessary to sustain it. Ruin—inevitable ruin, *must* follow, soon or late, a practice so thoughtless, so irrational; even although our soil could be brought to a state of fertility surpassing a hundred fold certain lands in Opelousas, of which I once heard it said, that they would produce in twelve hours, pigs fit to roast if you would only plant sow's tails in them the over night. Should any one doubt the impoverishing effects of our habits, fashions, and modes of living,—at least any one who is old enough to compare present men and things with the men and things of former times—say 40 or 50 years ago;—let him turn his eyes where he pleases, and his doubts will very speedily vanish. He will behold in a vast majority of instances, an excess of expenditure beyond income; with habits, fashions and selfish indulgencies, so enervating in their combined effects, as in a very great degree to unfit those who are under their influence, for all persevering industry in any of the more laborious pursuits of life; but, above all, for economising and usefully applying their resources. Some of the proofs which I shall adduce of the truth of my assertion, may possibly appear to some, if separately considered, of too trivial a nature to be entitled to any serious notice; and so would be a single brick in an edifice that might cover acres of ground. But my aim is to demonstrate a general result from a combination of particulars; and to these first, I wish to call your attention, in comparing present with past times. *Now* we cannot even take a drink of water, unless it is in cut glass; which article, by the way, in a thousand fantastical shapes of little or no real utility, must load our sideboards, to the exclusion of every thing but certain pieces of stationary plate, or a drawing room is considered utterly unfurnished. Our meals must be in china; our food taken,—that is, if we would eat it genteelly, with an ambiguous kind of article—large enough for a table spoon, but called, I believe, a four-pronged silver fork, which it requires some practice to learn to use. Our bedsteads and bed apparatus, with all other household furniture, must be made of materials and fashion to cost us six times as much as formerly; while our out door equipments require to be of triple or quadruple value to what they once were. Our young men—or a vast multitute of them, are so dreadfully afflicted with a new-fashioned disease called dyspepsia—(a thing utterly unknown to their grandfathers,) as to be compelled to betake themselves to carriages of some sort or other in order to sustain the insufferable fatigue of transporting their frail bodies to a distance, even of half a dozen miles—in hot weather overshadowed with umbrellas, lest the burning sun should produce a brain fever, and in winter double booted and double coated, to guard against an equally fatal thing—a congealation of the blood. Our daughters are bonnetted and bishopped, padded and corsetted out of all natural shape, health, and comfortable use of their limbs—few of them, comparatively speaking, can so much as sit on a horse, much less can they ride him, although this kind of exercise was, in former times, a favorite one with ladies, and of all others the best calculated to counteract the effects of those sedentary habits so destructive both to their health and to their lives. To preserve these blessings, it is, indeed, of ten-fold more value than all the articles in the doctors' shops put together. As to our good old people, the fathers and mothers of this unnaturally delicate, tender, and unhealthy offspring, rendered so by being brought up without blending some useful occupation and active exercise with what is called *"their education,"* they spend much of their few remaining days, in still farther multiplying and extending the means which their sons and daughters have for killing that great enemy, called time; and exultingly behold these children as striking examples of precocity in the much vaunted march of intellectual and physical perfectibility. Are the poor children to be solely blamed for all this? Are the painful instances of their worthlessness, when any such occur, to be ascribed to themselves alone? No—God forbid; for the greater part of the responsibility—and a most awful one it is—rests upon the parents, who by mis-directed love and affection, have sowed the seeds of all the moral and physical evils which their offspring have to encounter. That evils of the latter kind—I mean such as affect health and life—have much increased among us, I infer from the simple well remembered fact, that fifty years ago, for a distance of thirty-four miles, we had but two doctors, and that at the two extreme points; although I am confident, at least as few people then died in proportion as now. At present, within the same distance and along the same tract of country, including the two first mentioned points, we have at least ten practising physicians; proving most clearly a great increase of effeminacy and ill-health among us; that is, if so many doctors are really necessary to keep us all out of the jaws of death. Take another proof of greatly augmented luxury and effeminacy, since I could first remember. At that time, within the county in which I reside, there were two, or at most three pleasure carriages of four wheels—in the language of those days called chariots; now we have not less, I believe, than forty four-wheeled vehicles of equal or greater cost, but under some new denomination, chiefly of foreign derivation; and yet you can go no where without hearing the cry of *"hard times—hard times;"*—"the tariff—the infernal tariff;"—"produce worth nothing." Formerly, many of our planters and farmers aided in performing most of the operations of husbandry with their own hands; *now,* such a thing is quite a rare sight; the work once done, at least in part by the master, is, in these reforming and reformed times, confined almost exclusively to his slaves or to hirelings; manual labor (as it would seem) being quite too servile an occupation for a state of society wherein all the citizens would be *governors* rather than *governed.* The almost boundless fields of agriculture, where a vast majority of us might find agreeable and suitable, useful and profitable employment, are deserted for the comparatively narrow field of politicks, where but few can work at a time, and where fewer still are well qualified to work. Our domestic concerns, which, when properly managed, may well be called the life-blood of society, appear to be considered as of quite too tame, unobtrusive and private a nature for the aspiring, distinction-loving geniuses of modern times. For agriculture to flourish, those who are engaged in it must love home, be it ever so homely, and all its avocations, more than they do public places and public employments. They must endeavor to inspire their children with similar sentiments; and in order to do this, must instruct them from a very early period of life, to share in all domestic occupations wherein they can bear a part, when not engaged in cultivating their understandings. In a word, if they would make their sons good farmers and planters, they must teach them something of practical agriculture, and not make them all lawyers, doctors and politicians.

In the foregoing attempt to enumerate the various causes of our agricultural depression, I may possibly have omitted some; but I am persuaded that all have been noticed which contribute most in producing the evil. They may be summed up in these few words;—want of industry;—want of economy in the means of living;—want of judgment and perseverance in improving and cultivating our lands. But some of you, perhaps, will say—"any quack can inform us that we are sick; but the *one,*—the *great thing needful*—is, to tell us how to get well." If you will not think me presumptuous, I will ventore to offer a few prescriptions, which I am well persuaded all would think infallible who would give themselves a fair chance of testing their efficacy by actual experiment. I mean *infallible* in curing, or effectually counteracting that most annoying epidemic called "*hard times.*" Some possibly may think the proposed remedy harder than the disease itself, and children-like, refuse to swallow it;—just as certain invalids who are destitute of every thing resembling self-control, prefer to linger out a miserable existence, under some fatal distemper, rather than take the unpalatable medicine which would effect their cure. But let me proceed to my prescription: it is first:

To spend annually less,—even if it be only ten cents, than your annual income.

2ndly. To bestow more of your silver on real, substantial agricultural improvements, than on your table and travelling equipages.

3rdly. Never to misapply the term "realizing property," so as to make it mean (what is often meant,) an investment of money in plate, jewelry, and costly liquors.

4thly. To persuade your sons, and daughters too, that there is really nothing disgraceful in domestic and manual labor; but much that conduces both to health and comfort, especially when taken in the open air.

5thly. Teach them also, if possible, that the two great objects of clothing—are, first, bodily comfort, secondly, a decent, becoming appearance, and that both may certainly be attained at much less than half their present cost.

6thly. Beg, beseech, implore your boys to believe, that to fit themselves for the various duties of agriculturists, they must endeavor to acquire not only a knowledge of the profession in all its branches; but habits of industry, sobriety, economy, integrity, and moral rectitude, as absolutely indispensable to their success.

7thly. Convince your girls, if you can, even at the risk of being deemed by the fashionable world—queer, singular, stingy old curmudgeons, that their heads may be exceedingly empty and useless *within,* although *externally* loaded with as many jewels and other expensive ornaments, as would buy a large farm;—teach them too, that their most honorable occupations are to assist their mothers in household concerns;—that the strumming of harps and pianos as a principal employment;—the dancing quadrilles and waltzes as the perfection of accomplishment; and annually to consume half their time in stated migrations north and south,—like so many birds of passage searching for their appropriate food, cannot by any allowable use of language be deemed worthy of moral, rational, accountable beings, who have intellects to cultivate, numerous domestic as well as moral duties to fulfil;—but, above all, immortal souls to be saved.

Lastly, for ourselves, let us strive hard to resist that wide spread infatuation—the offspring of ignorance, self-conceit, and its natural associate, obstinacy—which leads us to imagine that no useful knowledge in husbandry can be gained from books, but that every thing of the kind must be, either orally handed down from father to son, without a shadow of change; or self-acquired by actual experiment. Let us then study books on agricultural subjects, as well as practice the various means and processes which the experience of others, united with our own, has demonstrated to be essential to its prosperity. Let us cherish our Society as a source of mutual instruction,—mutual benefit, as furnishing the best opportunity for interchanging our opinions and our knowledge in regard to all matters connected with our profession; and providing the most practicable channel through which to diffuse over the limits of our Society all the information relative to our vocation, that we may have acquired since our first organization. Before I conclude, let me call your attention from these generalities to certain particulars, upon the regular and faithful observance of which, the very existence of our Society seems to me to depend. We must, *indeed we must, if possible,* hereafter act in direct opposition to the too common, but fatal adage, that "every body's business is nobody's business." Each member must so far consider the general affairs of the Society his own individual concern, as not to wait for a specific resolution or order to do something for it; but must be at all times ready and willing to exert himself in whatever way he can, to promote its objects. That all the inhabitants of this town—whether members of our Society or not, have a deep interest in its continuance and prosperity, is a fact so obvious, as hardly to require to be stated; yet a strange apathy seems to prevail on the subject; as much indeed, as if it were perfectly immaterial whether, in our corporate capacity, we live or die: hence there are many who are still out of our Society. Pardon me, fellow-citizens, if I say, that this appears altogether inexcusable;—at least, if it be inexcusable for men to neglect their own palpable interests, when so plainly seen even by themselves. As regards our country members, let me ask them, what better opportunity could they wish for selling and buying any kind of live stock, or agricultural implements, if they would only agree, one and all, to make a fair, as well as a show at those meetings? What better opportunity could they make to purchase their fall and winter goods, in all cases wherein they procure them here? What more social and agreeable meeting could they seek, or so conveniently find with their brother-agriculturists, scattered over so wide an extent of country, as seldom to be likely to meet at all, except upon such occasions? Are these methods to be utterly disregarded, of drawing closer the cords of union between all the members of the same professional family? Shall agriculturists alone, of all the professions, follow their vocation without any concert, any co-operation whatever for mutual instruction, mutual promotion and defence of our common interests?

I entreat you my hearers, one and all, to bestow on these suggestions, at least so much of your serious thoughts, as will enable you to estimate them for what they are worth, be that little or much. If you *will,* I am persuaded you will never let it be said of this part of Virginia, that she is utterly incompetent to sustain any thing of such great general interest, as a well organized agricultural society:—that her citizens are too indolent, too selfish for such institutions long to exist among them; and that although the natural capabilities, of our soil are better than those of the eastern states—our inducements to seek improvement in our profession greater, from our being more exclusively an agricultural people; yet that no effort to unite us in any plan or system of co-operation and mutual labor for the good of the whole, can have more than a very short-lived, and rickety existence. Let me again beseech you, my agricultural brethren, to avoid, if possible, so hateful a reproach. Nothing is wanting but a very moderate portion of that public spirit which so laudably sustains in the most flourishing condition the numerous agricultural societies in our sister states to the north and east. This spirit would enable us, before we part, to resolve, and to fulfil the resolution, that each member shall hereafter, not only give us his personal attendance, but contribute something towards the reputable support of our institution, either by written details of well authenticated, successful experiments in husbandry, of his own or neighbors' making; or by exhibiting some live-stock, some agricultural implement; or some articles of family manufacture. That the ladies will do *their* part, and do it admirably *well,* I have no doubt whatever; for their exhibitions of household manufactures have increased in interest at each succeeding show. Let their husbands co-operate with equal zeal, equal ability, and we need never despair of the most gratifying and highly praiseworthy results.—What little *I* can do towards the promotion of our views and objects shall always be at the service of the Society, so long as life and health permit me to do any thing for them. With this assurance I beg you to accept, both as private individuals, and as members of our association, my earnest wishes for your continual success.

(From the New England Farmer.)

WHEAT.

Mr. Fessenden,—In the two last numbers of the New England Farmer, your readers have been favored with some observations relative to *fallen leaves as a manure.* Permit me to throw in a word not altogether unconnected with this subject.

The opinion is very prevalent in various parts of the Commonwealth, that wheat can be raised only on new land—that after it has been improved for a short time, this species of grain cannot be sown with any prospect of success. The consequence has been, that the cultivation of wheat has almost ceased. If the owner of a tract of wood lands find occasion to clear up a portion of it, he will then sow this piece of ground with wheat with as much confidence of success as in any other part of his agricultural pursuits, and he seldom fails of a suitable reward. His wheat grows, it comes to maturity, he gathers a fair crop. Now what is the reason that we succeed in obtaining good crops of wheat upon new land, but fail upon the old—upon that which has been long under cultivation? That we succeed in either case, affords satisfactory evidence that there is nothing in our climate, the peculiarity of our seasons, or the nature of our soil, which renders it indispensable that we should depend upon our southern or western neighbors for this necessary article of food. Must it not then be attributed to improper management or to neglect in preparing our soil for this particular kind of grain? I am strongly inclined to the opinion, and thus far I should like to see the experiment fully tried, that in every part of the state where wheat can be raised upon new land, it must to equal advantage and with the like probability of success, be raised upon land that has been long under improvement. That the principal cause of failure in the latter case has arisen from having exhausted the soil of that particular kind of aliment which is adapted to the growth and nourishment of wheat.

New land is filled with vegetable manure. The leaves of the forest have perished upon the soil and rendered it rich, lively, mellow and easily pulverised. Restore the soil of your old fields to this state and they would again produce similar results. It is true that we cannot restore the soil to the same state, by the application of the same kind of vegetable manure, yet we can approximate towards it, we can employ a substitute, we can enrich our lands, we can make applications of vegetable substances, and I have yet to learn that the leaves of the forest are more congenial to the palate of this plant than other vegetables. If the land is in a good state of cultivation, a crop of clover, or any other kind of grass, ploughed in, decomposed and mixed with the soil, *may* answer the purpose as well as rotten leaves. In my own experience, I have not often found it necessary to turn in a crop of grass, especially upon lands that are sown with artificial grasses. In the repeated ploughing of these lands, the soil has become so far saturated with vegetable manure by the decomposition of the roots and blades of the grass, as to afford sufficient nutriment to the crop of wheat.

I have cultivated this species of grain, every year, for the last five and twenty years, and have been as successful in this as in any other branch of husbandry. My crops have averaged between 20 and 30 bushels an acre, and have sometimes risen higher; twice during that period, my crop has been sadly blasted. I have found the red bearded wheat the most sure. This has never failed me entirely; when the white wheat from Genessee has proved worthless. My course is briefly this. I have five fields which I stack down to clover and herds grass. Late in the autumn of every year, I plough up one of them, and unless feed has been short and scarce, turn in the whole of the aftermath. The next spring, I manure the land, and plant with corn or potatoes, taking care not to disturb the sod unnecessarily during the cultivation of this crop. As soon as the corn has arrived to a sufficient degree of maturity, it is removed from the ground. The best is then ploughed a little deeper than before, in order that the sward may be brought near the surface, and subjected to the operation of the harrow, &c., until it is sufficiently pulverised and mixed with the soil. I should choose to have the wheat sown as early as is practicable after the 20th of September, but the season and other circumstances have frequently prevented its completion, until early in October. I have gathered a good crop, when it was sown as late as the tenth of the latter month. The land is then stacked down with grass, with the wheat.

I do not know that my observations or experience will be of any value to others, but I confess that it has often given me pain to see my brother farmers go to the merchant and buy a barrel of flour, when they ought to have twenty barrels of their own raising to sell. S. L.

West Springfield, Nov. 30, 1830.

(From the Southern Agriculturist.)

GRASSES.

Results of several attempts to Cultivate Foreign Grasses in the upper part of Georgia; by C.

Dear Sir,—Circumstances, unnecessary here to repeat, prevented my earlier acknowledging the receipt of your favor. I feel much gratified by your obliging offer of forwarding to me the native grass seed; I shall endeavour to give it a fair trial, and in due time notify you of the result. I regret I cannot give you more satisfactory information relative to the other grasses which I have at different times attempted to cultivate. About ten years ago I procured from Philadelphia, red and white clover, Herd's and orchard grass seeds, all of which I sowed at the proper season, and in suitable ground. The seeds all came up well, and at first looked promising, except the Herd's grass, which I attributed to its being too long kept, or, perhaps, not being sufficiently matured when cut; before the ensuing autumn, however, the clover nearly all disappeared, owing, I presume, to the heat of the sun and long continued droughts, so frequent in our southern climate. I ought before to have said that it was sown among wheat in the winter, so that it was well protected while young. The orchard grass was sown in the same manner and at the same time; stood the summer well, and produced a tolerable crop. The next spring very little of it came up, and before the end of the summer, scarcely a stalk was to be seen. The little that came up of the Herd's grass did well; the second year it spread and took possession of the spot where it was sown, where it yet remains, although no attention has ever been paid to it.

In 1824, I made a second trial with white clover, orchard grass, and a kind called feather grass, the result was the same as before. The same year I procured some of the Guinea grass seed, of the West Indies, which I planted in drills contiguous to my milking pen; it came up well, grew luxuriantly, and bore cutting four times during the summer; unfortunately, neither cattle nor horses would eat it, unless in a very tender and succulent state, and even then very sparingly.

I have thus, at your request, given a brief sketch of the few trials I made to cultivate the grasses above alluded to. My object was to procure a kind of vigorous growth, suitable to cut three or four times in the summer, to feed my milking cows morning and evening—that it should be permanent—that if sown for pasturage it might answer for that purpose, spring and fall, when no other is to be had. Of the kinds above enumerated, the Guinea and Herd's grass seem best calculated to answer the purpose. The only objection to the first, is the one alluded to, and, perhaps, when pasturage is scarce, this might be got over, as we know taste is the creature of habit, both cattle and horses might in time get accustomed to it. Mules, it is said, are fond of it, and to those planters who principally work those animals, I should think it particularly valuable. The Herd's grass would, in my opinion, if sown on low ground, not too wet, answer for meadow as well as pasturage in the spring and fall, observing not to suffer cattle to run over it in wet weather, so as to injure it with their hoofs. Notwithstanding both attempts to cultivate the clover and orchard grass failed, yet I, a few years since, knew a lot in the vicinity sown with red clover, which bore four cuttings during the summer; it was, however, on ground highly manured, and which the subsequent year brought at the rate of eleven or twelve barrels of corn to the acre; hence I conclude that on rich ground in wet seasons, it may sometimes succeed, but the objections before stated forbid the idea of its ever being generally cultivated in this climate.

On the other subjects of your inquiry I have not had sufficient experience to arrive at any certain conclusion, so as to justify my giving an opinion; for although an old man, I am but a young planter, and that on a very limited scale.

Very respectfully, dear sir, your obed't serv't,

C.

Clarke County, Oct. 15, 1830.

(From the Southern Agriculturist.)

GREEN WEEDS.

On the Advantages of Listing down Green Weeds in August and September; by W. W. Hazzard.

When experiment increases our experience, and suggests a remedy for error, it is judicious, nay, requisite, Mr. Editor, that a communicative disposition should promulgate the benefit to all; as a selfish mind would check improvement by appropriating to its exclusive advantage the results of useful observation.

We should strive to be better and wiser, not only for ourselves, but for our family, for the little community in which we move, and for the great community of our country. Be not surprized, Mr. Edidor, at the order in which I place these objects; whatever order divines or moralists who contemplate the divers duties obligatory on men may place them in, this is the order they hold in nature, and I have always thought that we might lead ourselves and others to private virtue and public good more effectually by a due observance of this order, than by most of those sublime refinements that pervert it.

> "Self-love but served the virtuous mind to wake,
> As the small pebble stirs the peaceful lake:
> The centre mov'd, a circle straight succeeds;
> Another still, and still another spreads:
> Friend, parent, neighbour, first it will embrace,
> His country next, and next all human race."

It is urged, Mr. Editor, with some force and plausibility, that listing in green weeds, (the drusen of German Agriculturists,) is injurious to the cotton plant, (our *gossypium herbaceum,* and once the "golden fleece" of the south,) first, because it collected a quantity of dry trashy material under the tap root of a delicate plant, through which it must descend to the earth, or perish in the tardy and withering operation: Secondly, because the pith, or *medulla,* of most weeds, are the winter habitation of those insects which, in spring, were supposed to ascend the roots, feed on the *alburnum,* produce disease in the plant, and prematurely terminate its existence by *rust;* and, lastly, it is conjectured that listing in green weeds would form a hot-bed, congenial to an abundant generation of cut-worm and papillo; the first so destructive to the young plant, while the latter devours the whole, as soon as it assumes the form of a caterpillar.

Objections sustained by such plausible arguments induced me to avoid, as much as possible, the practice of weedlisting; but last spring we determined to list in all the weeds on one half of the field, and burn off the rest; as we found the listing very tough, our land being of a marly quality, and therefore the very kind that is most enriched by the fermentation of green-weed list.

Torrents of rain, succeeded by a scorching sun, and sometimes a continued drought, suddenly arrested by a tornado, or a heavy fall of rain and hail, were causes calculated to produce all those evil effects the most gloomy or specious theorist could have conjectured, might be the result of weed-listing this year; nevertheless, Mr. Editor, it is perceptible that the cotton planted on the weed-listed beds, is from one to two, and even three feet higher, in some places, than that planted in the same field where the fire passed over before listing. The former is not now more infected with rust than the latter, and it is believed that if the gale had not lessened the production, the weed-list would yield something like double the quantity of the burnt list.

This experiment has so confirmed us in the vast utility of listing in green weeds, that we have chopped down all the weeds in one field, and are now engaged in listing the whole, with a division of hands, whenever we can draw off the labour from cotton-picking; and practical experience has again convinced me, that covering the vines of root potatoes with earth, along the sides of the beds, and cutting below where they are covered for slip potatoes, is a great improvement to the size and bearing of our root crop. I have, also, ascertained that the cow-pea planted subsequently to the full moon in July, is more productive than at the same period in June, and if planted previous to the full, will produce an exuberant vine with few pods.

From the time of Abel, who sacrificed "the firstlings of his flock" to propitiate the seasons, until the present day, there are strong superstitions connected with agriculture, that might be amusing to some and instructive to other of your readers.

The Egyptians were so sensible of the blessings of husbandry, that they ascribed its invention to superhuman agency, and even carried their gratitude to such an absurd excess, as to worship an ox for his services as a labourer. Cato, the censor, who was celebrated as a statesman, orator and general, having conquered nations and governed provinces, is said to have derived his highest and most durable honours from writing a voluminous work on agriculture, and the Georgics of Virgil, the majesty of verse and harmony of numbers, add dignity and grace to the most useful of all topics. He illustrates the importance of "thorough tillage" by the following apologue: a vine-dresser had two daughters and a vineyard; when the eldest married he gave her a third portion, notwithstanding he had the same quantity of fruit as formerly. When his youngest daughter was married, he gave her half of what remained, still the produce of his vineyard was undiminished. This result was in consequence of bestowing as much labour on the half, as he had done on the whole; and here let me inquire if it would not be more conducive to our interest to plant less cotton, and devote more attention to it, and grow a sufficiency of grain to supply our wants, that the proceeds of a cotton crop may be applied to other purposes than the purchase of this indispensable article?

Let us look around and we will find the planter who pursues this system, is, for the most part, easy in his circumstances; while those who adopt an opposite course are not always comfortable.

I will now conclude this article, Mr. Editor, with the hope that it may not be tedious, and with a brief notice of one of the most prominent benefits and improvements which modern science has contributed to the art of agriculture. from that valuable lexicon, the "Americana:" "Fields," it says, "may be so foul with weeds as to require a *fallow*, but not what is too often understood by that term in this country. In England, when a farmer is compelled to fallow a field, he lets the *weeds grow into blossom*, and then *turns them down;* in America, a fallow means a field where the produce is *a crop of weeds running to seed*, instead of *a crop of grain*." Now this is the very evil I wish to counteract, by turning down my weeds in a list at this season, when luxuriant vegetation and blooming weeds will moulder away into a *nourishing pabulum* for our cotton plants during the heat of summer and the decline of autumn; and if I can prevail on my brother planters to try *this cheap mode of renovating an impoverished soil*, I shall be gratified, and think you will excuse me for imposing this tax upon your patience.

I salute you with respect and esteem.

W. W. HAZZARD.

West Point, St. Simon's Island, Sept. 1830.

HORTICULTURE.

(From the New York Farmer and Hort. Repository.)

PINES AND SPRUCES.

Variety and Uses of the Pines and Spruces; prepared from Michaux's North American Sylva. By the EDITOR of the N. Y. Farmer.

Red Pine, Pinus rubra. This species of the pine is found as far south as the Hudson river, and extends to the regions north of Lake Superior. It grows to the height of 70 or 80 feet, and in diameter two feet. The trunk is of a uniform size for two thirds of its length. The bark is of a clearer red than other species in the U. States. The leaves are of a dark green, 5 or 6 inches long. The cones are about two inches long. The concentrated circles are crowned, and the wood exhibits a fine compact grain. It is rendered heavy by the resinous matter it contains, and is highly esteemed for strength and durability, and is used in ship building, particularly for the decks of vessels, furnishing planks forty feet long without knots. When freed from its sap it makes durable pumps.

Grey Pine, Pinus rupestris. In Nova Scotia and Maine this is called *Scrub* pine. In the vicinity of Hudson Bay, a few individuals are seen growing in the crevices of the rocks, but not reaching a height to exceed three feet. The cones are about two inches long, of a grey color. The Canadians boil these cones, and drink the water for colds.

Yellow Pine, Pinus mitis. This tree is widely diffused throughout North America. In the Carolinas and in Georgia, it is called Spruce or short-leaved pine. This is a beautiful tree, having a pyramidical summit. It attains, in New Jersey and Maryland, a height of 50 or 60 feet, and is of a diameter of 15 to 18 inches. In Virginia, the trunk is often 5 or 6 feet in circumference. The leaves 4 or 5 inches long, are fine, flexible, hollowed on the inner surface, of a dark green, and united in pairs. The cones do not exceed an inch and a half in length. The concentrated circles of the wood are six times more numerous in a given space, than those of the Pitch and Loblolly Pines. The sap part of the wood seldom exceeds two and a half inches. The heart is fine grained and moderately resinous. This tree is much used in building houses, for floors, casings, doors, wainscots, and sashes of windows. It is also used in ship building for decks, masts, yards, and beams. That from New Jersey and Maryland is finer grained, and stronger than that growing on the richer lands of the Delaware river. It is quite an article of exportation to the West Indies. Turpentine and tar are obtained from it with considerable labor.

New Jersey Pine, Pinus inops. This tree grows in the sandy soil of the southern part of N. Jersey. It is also found in Maryland, Virginia, Kentucky, and Pennsylvania. Sometimes it reaches 30 or 40 feet in height, and 12 or 15 inches in diameter. The tree contains too much sap to make it valuable.

Table Mountain Pine, Pinus pungens. This tree receives its name from the Table Mountain in N. Carolina, which is its exclusive locality. The height of this pine is about 40 or 50 feet. The buds are resinous, and the cones three by two inches.

Long-leaved Pine, Pinus australis. This tree is known by several other names, as Yellow, Pitch, Broom, and Southern Pine. In the Carolinas, Georgia, and the Floridas, it extends over a tract more than 600 miles long, and 100 broad. The mean stature of the Long-leaved pine is 60 or 70 feet, with a diameter of 15 or 18 inches for two thirds of its height. The leaves are about one foot long, of a beautiful brilliant green, three united in the same sheath. On the young shoots the leaves are so long as to be used by the negroes for brooms. The buds are very large, but not resinous. The cones, seven or eight inches in length, sometimes contain seeds in abundance, which are voraciously eaten by wild turkeys, swine, and squirrels. This pine has but little sap. The wood is fine grained, susceptable of a polish, and very durable. It is very extensively used, for building houses and for naval architecture. For decks it is preferred to the true yellow pine. In Liverpool, where it is called Georgia pine, it is sold from 25 to 30 per cent. higher than any other from the U. States. Most of the resinous matter consumed in the U. States, is obtained from this tree. There are six kinds of resinous products, turpentine, scrapings, spirit of turpentine, rosin, tar, and pitch. The two last are delivered in their natural state; the others are modified by the agency of fire in certain modes of preparation. Turpentine is the sap of the tree obtained by making incisions in the trunk of the tree. The scrapings is a coating of the sap which becomes solid. Spirits of turpentine is made by distilling turpentine in large copper retorts. The residuum of this distillation is rosin. Tar is made from fallen and dead trees, cut up in small pieces, and made into kilns similar to those for making charcoal. Pitch is tar reduced by evaporation.

Pond Pine, Pinus serotina. This tree abounds in the maritime districts of the southern states. The leaves are five or six inches in length, the cones two and a half inches long, and commonly in opposite pairs. The height of the tree rarely exceeds 35 or 40 feet. Owing to the great quantity of the sap, the tree is but lightly estimated.

Pitch Pine, Pinus rigida. This is sometimes called Black Pine. It is found more or less abundantly throughout the U. States. In Vermont it is found to the height of 12 or 15 feet; on the ridges of the Alleghany 35 to 40; and in the swamps or lower parts of N. Jersey and Maryland 70 or 80 feet. The bark is thick, blackish, and deeply furrowed. The tree is remarkable for the number of its branches, which occupy two thirds of the trunk. On mountains and gravelly lands the wood is compact, heavy, and surcharged with resin; in swamps, on the contrary, it is light, soft, and composed almost entirely of sap.

That on the Alleghanies is esteemed superior to others for the floors of houses that are frequently washed. This tree formerly abounded in the New-England states, from which, in the year 1705, considerable tar was exported to England under a premium of one pound sterling for eight barrels.

Loblolly Pine, Pinus tœda. This is often called White Pine. It is found throughout the lower parts of the southern states. In Virginia, lands that have been exhausted by tillage are exclusively covered with this species of pine. For five or six miles around Charlesten, S. C. the Loblolly occupies the soil. The leaves are fine, six inches long, three united together. The cones are four inches long. The height of the tree exceeds 80 feet, with a diameter of two or three feet. The trunks often afford cylinders of 50 feet, clear of knots, but in those of the diameter of two or three feet, the alburnum or sap part is often 30 inches. For fuel, it is often sold one third less than the long leaved pine. It affords turpentine in abundance, except when on dry soils with slow growth, it is considered an inferior pine.

White Pine, Pinus strobus. In New-Hampshire it receives the secondary names of Apple and Sapling Pine. The leaves are five fold and four inches long. The cones are four or five inches in length, pedunculated, and pendulous. It prevails most abundantly between the 43d and 47th degrees, but is found in favorable situations further south. These trees sometimes attain to the height of 150, and even 180 feet, having a diameter of four to five feet. The wood of this species is used in greater quantities, and for more diversified purposes than any other of the American pines. It has but little strength, gives a feeble hold to nails, and swells by humidity, yet it is durable, light, easily wrought, and free from knots, furnishes boards of great width, and is abundant and cheap.

Mr. Michaux states that the influence of soil is greater upon resinous than upon leafy trees. This is particularly the case with white pine. A light, deep, and humid soil is favorable. Throughout the northern states, seven-tenths of the houses, except the large cities, are of wood, three quarters of which, estimated at 500,000, are built of this tree. It is used for ornamental works, such as cornices, friezes, and mouldings. It receives gilding well, and is therefore used for the frames of looking glasses and pictures.

Black or Double Spruce, Abies nigra. This tree is most abundant between the 44th and 53d degrees of latitude, and 55th and 75th of longitude. The leaves are of a dark gloomy green, only four lines in length, attached singly to the surface of the branches. The flowers appear at the extremity of the twigs; and succeeded by small reddish oval cones. The height to which this tree attains in a favorable soil, is 70 or 80 feet. The trunk, unlike that of the pines, is smooth, remarkable for its perpendicular ascension, and for its regular diminution from its base to its summit. The distinguishing properties of the Black Spruce are strength, lightness, and elasticity. It is very generally used for spars. The knees of vessels are also sometimes made of this tree. Great quantities of spruce boards are exported to the West Indies and to England. From the young branches, the drink known by the name of *spruce beer* is obtained.

White or single Spruce, Abies alba. This species is indigenous to the same districts of country as the preceding, extending, however, farther south. The leaves of this kind are longer, more pointed than those of the Black Spruce, and of a pale bluish green. The cones are of a lengthened oval, two inches long. This tree rarely exceeds 50 feet in height. The wood is inferior to the black, and snaps more in burning. The fibres of the roots deprived of their pellicle, are used to stitch together canoes of birch bark. The branches when used for beer, communicate an unpleasant odour. Producing a fine contrast with the darker foliage of other spruces, it is esteemed a valuable ornament for parks and gardens.

Hemlock Spruce, Abies canadensis. In Canada it is known by the French name Pérusse. It is most common in the northern states, extending to Hudsen Bay. This tree attains the height of 70 or 80 feet, with a circumference of 6 to 9 feet. The leaves are 6 or 8 lines long, flat, and numerous. Owing to the symmetrical arrangement of the branches and to its tufted foliage, this tree has an elegant appearance, in a favorable soil, and less than thirty feet high. Though very abundant, it is of secondary importance, except its bark which is extensively used for tanning. It decays rapidly when used for external covering. It is much firmer than white pine, and is used in Maine for threshing floors, and very generally for lathes. In the latter form it is exported to England. Posts for fence made of it will last about fifteen years. The bark for tanning is not so good as that of the oak, but both together are said to be better than either alone.

American Silver Fir, Abies balsamifera. This is often called Fir Balsam, and Balsam of Gilead. This is a native of the colder regions of our country, but is found on the higher parts of North Carolina. It grows to the height of 40 feet. The leaves are 6 or 8 lines long, and inserted singly on the sides and on the ends of the branches. They are of a bright green above, and silvery white beneath. The cones, always directed upwards, are four or five inches long. The wood is light, slightly resinous, with a yellowish heart. Resin is extracted by incisions in the body of the tree. The fresh turpentine is a greenish transparent fluid, and recommended in certain stages of pulmonary consumption. The Silver Fir of Europe is analogous to this, but has longer leaves, larger cones, and grows to a greater height. The true Balm of Gilead is from the *Amyris Gileadensis,* a very different vegetable, a native of Asia.

The most striking difference between the Pine and the Spruce, is in the arrangement of the foliage; the leaves of the pine, resembling coarse thread, vary in length in different species, and are united to the number two, three or five in the same sheath; those of the spruces, on the contrary, are only a few lines long, and attached singly around the branches or upon opposite sides.

(From Prince's Pomological Manual.)

PEARS.

Francipane. *Pr. cat. Roz. Coxe.*
Franchipane. Duh. P. cat. 25 ed.

This pear is of very regular form, measuring thirty to thirty-three lines in height and twenty-two to twenty-five lines in its greatest diameter, with a stem always rather short, rarely exceeding six or eight lines in length, and much larger at the extremity where it unites to the tree. The skin is a lemon colour on the shade side, but red next the sun, and scattered almost entirely over with greyish specks; the flesh is half-melting, of a rich and agreeable flavour, accompanied by a little sharpness; the fruit attains to maturity in September, and its title originated from a real or imaginary resemblance in the taste to the kind of French pastry called Franchipane.

Brown Beurre. *Pr. cat. Mil. For. Pom. Mag. Coxe.*

This is one of the choisest fruits our gardens can boast, and it has been justly remarked, that there can scarcely be found any pear of autumn or winter that is superior to it. In England, however, it is not sufficiently hardy to bear as a standard, and they are under the consequent necessity of training it as a wall-fruit. Its period of ripening is about the end of September, and it will not keep very long.

In Fessenden's American Gardener it is remarked, that this "is in Boston the prince of pears, but of no value in the country unless on walls, or in gardens sheltered by walls and hills."

From these considerations it would appear preferable, that the trees be low set, in order that they may be trained accordingly. The growth of the tree is slow, straggling, and irregular, and when young it is difficult on this account to be trained into an erect and well formed standard, from which cause it arises that trees of this variety and of the Gansels Bergamot, which grows in a similar manner, when sent from the nurseries, have so ill shapen and indifferent an appearance.

The Brown, Red and Golden Beurrés, which have been described by numerous authors as distinct, and the Beurré gris doré and rouge, which have been separately applied as distinct titles, are identically the same fruit; and the Pomological Magazine follows the correct course long since adopted by the intelligent French writers, of uniting them all under one head.

The Pomological Magazine, however, pays a high compliment to Duhamel for making known these facts of the several titles being synonymous, when by referring to the De la Quintinye, it will be seen they were already promulgated ere Duhamel was in existence, and had been repeated by Evelyn in 1693.

It can readily be judged how much this measure of proper arrangement was called for in England, as adopted in the Magazine referred to, when we see that even in the seventh edition of Forsyth, which purports to be and really is greatly improved upon the previous editions, this pear is described under no less than four distinct heads, the descriptions all varying from each other.

The following description given in the magazine referred to, being very precise, I have extracted it:

"Wood, moderately strong, short jointed, flexuose, very apt to become cankered; but if healthy, of a bright reddish chestnut colour, dotted with pale brown: leaves rather large, ovate-oblong, tapering to the point, folded together, irregularly and obscurely toothed; petioles nearly an inch long; stipules often as long as the petiole; flowers, opening early, middle sized; petals, obovate, tapering into the claw, very little tinged with red; fruit, variable in shape, size, and colour, generally large, obovate, tapering to the stalk, which is usually from half an inch to an inch long, thick and fleshy at its union with the spur, and thickening obliquely into the fruit; eye, somewhat open, placed in a shallow depression; skin, soft, but not smooth, of a greenish golden yellow, appearing through a thin covering of russet; on the sunny side sometimes reddish brown: flesh, white, greenish next the skin, with some greenish veins through it, melting, buttery, juicy, rich, and excellent, but sometimes rather gritty."

Beurre D'Aremberg *Pr. Cat. Lond. hort. trans. Pom. Mag.*

This very excellent variety was introduced into our country, from Flanders, about eight years since, and has become pretty widely disseminated throughout the middle and eastern states of the union. The Gloux Morceau, which was sent to England from Flanders at the same time with this, has been cultivated in several English nurseries and private collections for this kind, and in some instances the error originated there has been extended to this country by trees sent from them. The Gloux Morceau, although of great excellence, is rather inferior in quality to this.

I extract the following description from the Pomological Magazine:

"This pear is truly characterised in the Horticultural Transactions as deserving 'to be placed at the head of all the pears in cultivation.' We certainly do not know any variety which can upon the whole be said to equal it; for its flavour is not only excellent, and its flesh tender and juicy, but it is hardy, a great bearer, and will keep till March. It is usually cultivated as a dwarf, being grafted on quince, and trained against an east or west wall, but it succeeds perfectly well as an open standard.

"The Colmar Deschamp, said to be the same as this, is not quoted as a synonyme, because it is doubtful whether it be not a distinct kind. Wood, deep yellowish brown, sprinkled with gray spots; leaves middle sized, ovate oblong, a little waved, nearly entire on the old wood, slightly serrated towards the extremity of the young shoots, of a rich dark green colour; fruit, turbinate, on an average three and a half inches long and two and three fourths wide at the broadest part, the stalk measuring one inch in length; there is a contraction towards the setting on of the stalk; skin, a delicate pale green, very slightly dotted with russet, which becomes a deeper yellow when ripe; flesh, whitish, firm, very juicy, perfectly melting, without any grittiness, and of a very extraordinary rich, sweet, high flavoured quality."

Beurre Diel. *Van Mons. Pr. cat Lond. hort. cat. Pom. Mag.*

This very large and excellent fruit was introduced into this country from the Netherlands, about the same time that it was sent to England. The following descriptive remarks are from the Pomological Magazine, which contains a very admirable figure of the fruit.

"This noble pear was raised by Dr. Van Mons, at Louvain, and by him named in honor of Dr. A. F. A. Diel, one of the most distinguished of the German pomologists. Its great merit, independent of its excellence, is its fertility, both when trained on a wall and as a standard. Its period of maturity is the end of November, and it keeps well till the beginning of January. It is of the first rank among desert pears. The tree is a free grower, and acquires considerable size.

"The wood is long, strong, flexuose, olive green, with a few scattered oval spots of an ash color; at the ends covered with down; when old becoming light grey; leaves large, either roundish or broadly cordate, smooth; fruit about the size and figure of the Summer Bonchretien, without the protuberances of that variety; it is much swollen a little above the middle, going off to the eye either abruptly or gradually, and tapering straight to the stalk, without any contraction of figure; when in perfection it is three inches broad and four inches long; skin, when the fruit is first gathered, bright green, changing in a short time to a bright orange, with little trace of russet; and its dots upon fruit from standard trees are usually surrounded with red; eye close, in a deep cavity, surrounded by knobs, ribs, or broad protuberances; stalk strong, woody, one and a half inches long, inserted in a deep funnel-shaped hole; flesh clear white, a little gritty towards the core, but otherwise perfectly tender and melting, juicy, with a delicious, rich, aromatic, saccharine flavor, without any perceptible mixture of acid; core very small, with narrow cells; seeds usually abortive."

Easter Beurre. *Pom. Mag. Pr. cat.*

This fine fruit, introduced of late years to our country, is thus remarked upon and described in the Pomological Magazine:

"Of all the very late keeping pears, this is decidedly the best. It has been recently introduced into England from the continent, but its origin there is not known. In many of the foreign collections it is confounded with the Bergamot de páques or Easter Bergamot, a good but inferior variety, from which it is distinguishable, not only by its fruit, but also by its wood, which is reddish yellow, not green as that of the Easter Bergamot. It is probable, from some circumstances, that the origin of this kind was Flanders.

"The pear of this name, described in the Hort. Transactions by M. Parmentier, is not here cited as a synonyme, because it is characterised as a crisp fruit, which this never is; for a similar reason, the pear so called in Van Mons' *Arbres Fruitiers,* is omitted, that writer speaking of its musky flavor, a quality unknown in the subject of these remarks. It is a most profuse bearer, grafted upon the quince.

"Wood reddish yellow, sprinkled with distinct whitish spots; leaves oblong, folded together; flowers early, very abundant, middle sized, petals oval, not imbricated; fruit large, roundish-oblong, broadest towards the eye, which is sunk in a moderately deep depression; stalk short, thick, sunk in a deep cavity; skin green, speckled with russet-brown—when ripe becoming yellowish; flesh whitish, inclining to yellow, perfectly buttery and melting, and extremely high flavored."

BEURRE RANCE. *Pr. cat. Van Mons. Lond. Hort. Trans. Pom. Mag. For.*

I quote the following description and remarks relating to this pear, from the Pomological Magazine:

"It is described by Dr. Van Mons as being the best of the late pears, keeping from December to May. This is perhaps to ascribe too high a character to the variety, which is, however, undoubtedly of rare excellence, not only on account of its flavor, but also of the capability it possesses of keeping sound and in perfection till a late period of the spring. It was raised at Mons by the late M. Hardenpont, by whom a number of other good Flemish pears were obtained from seed some years ago. The tree is vigorous, and a good bearer after a few years; it has a straggling mode of growth, the shoots being in many cases pendulous.

"Wood brownish yellow; sprinkled with roundish grey dots; leaves middle-sized, ovate, flat; stipules linear, about as long as the petioles upon the young wood; flowers early, large, with imbricated petals; fruit middle-sized, oblong, tapering to the stalk, which is long and slender; skin deep green at all times, even when most ripe; flesh green, melting, rather gritty, having a delicious rich flavor, with very little acid; the fruit shrivels in ripening.

BEURRE ROMAIN. *Pr. cat. N. Duh.*

The fruit is perfectly ovate, but its form contracts abruptly towards the stem, which is short, being only five or six lines in length. The height of this pear is three inches and six lines, and its diameter twenty-six lines. Both the eye and the stem are placed even with the outer surface of the fruit, that is, they are not placed within any cavity; the skin which is at first green, becomes altogether a light yellow during its ripening and interspersed with numerous greyish specks; the flesh is half melting, sweet, perfumed, and very agreeable. The seeds are brown, and the fruit ripens at the end of September.

(To be continued.)

INTERNAL IMPROVEMENT.

(From the Newark Sentinel.)

MORRIS CANAL.

First boat through Newark.—The inclined plane being completed, on Friday last we had the pleasure of witnessing the passage of the first boat through our town. About 10 o'clock the car descended from the summit of the plane into the water of the canal behind the hill which stretches along the north side of the town, until there was a sufficient depth of water upon the floor of the car to float the boat on. The large and beautiful boat Dover, of Dover, consigned to Mr. Jonathan Cory, was then towed into the car and secured. The water was now let in upon the large wheel at the summit, and the machinery set in motion, under the direction of Major Douglass, the enterprising engineer. The cable chain, one end being attached to the car and the other to the machinery, began to tighten—then the car, with the boat securely housed within its frame, having about two hundred persons on board, rose majestically out of the water. In one minute she was upon the summit, which she passed apparently with all the ease that a ship would cross a wave of the sea. The scene presented to the spectators from the bridge below the plane, when the bow of the vessel rose upon the summit from behind the hill for the first time, was indescribably grand and beautiful. As the forward wheels of the car commenced their descent from the top, the boat seemed gently to bow to the spectators and the town below, which she was now about to enter for the first time, when down she came amidst the shouts and cheers of the multitude collected to view the wonder—a boat sixty feet long sailing over a mountain seventy feet high, without any visible agent being employed to propel her forward, the large wheel and all the other machinery being under ground and concealed from view. There was no interruption to her progress at the summit, her advancing motion being constant and regular from the time she left the water on one side of the hill until she again entered it on the other. In 6¼ minutes she descended from the summit to the level of the town and re-entered her native element—thus passing a plane 1040 feet long, overcoming a descent of 70 feet, and advancing forward 770 feet in 6½ minutes. The boat was then floated out of the car and drawn by two horses, and as many boys as could get hold of the tow line, through the town to the lock near the river, where she took in a quantity of iron and returned again and ascended the plane in the afternoon, meeting and passing the boat Maria Colden about the midway of the plane, the one ascending and the other descending at the same time. The whole exhibition was not less grand than novel, and will form an important era in the annals of our town.

The boats are now passing up and down the inclined plane every day.

MISCELLANEOUS.

(From the American Almanac for 1831.)

FOGS AND MISTS,

When they extend over large surfaces varied with land and water, are generally produced in fine calm weather, after the sun's rays have ceased to warm the earth, by the higher masses of air, which have been rapidly cooled in the more elevated regions of the atmosphere, descending by their weight and intermixing with the lower, and lighter, and still warmer strata. These are gradually chilled, until the undermost stratum is affected, first to dampness, then to a slight precipitation scarcely visible to the eye, and finally, to mist and fog. The earth, during clear nights, immediately on the withdrawing of the heat-imparting energies of the sun, begins to emit the particles of heat it had acquired during the day, or, in ordinary language, to cool. The atmosphere does the same, but at a much slower rate. In the race, therefore, between the cooling powers of these two bodies, the start is usually made at sunset, with the earth's surface warmer than the incumbent air. The first, by its more rapid descent, overtakes the latter at some point of equal temperature, and passing its sluggish competitor, becomes colder, and, of course, instead of warming the stratum of air in contact, as it did in the first part of its course, it now, on the contrary, becomes an absorber of heat, and, consequently, cools the contiguous bodies. In both these cases the process is favorable to the formation of mist, but in different modes. In the first, it assists the intermixture of the two differently warmed bodies of air, by keeping up the temperature of the lower one, and by thus increasing its disposition to ascend, the mingling and the deposition are more rapid and complete. In the latter case, it is in the same condition with relation to the air near the surface, as the strata above it, namely, cooler, and therefore it acts similarly; the surface-air being now between two cooling masses, the rate of its condensation and consequent precipitation of moisture is at least continued, and perhaps increased.

The phenomenon of mists forming over lakes and rivers, when the atmosphere of their banks and adjacent land is entirely free from visible vapor, is a very remarkable one, and has excited considerable attention. The late Sir H. Davy observed and communicated to the public some curious facts, which have contributed very much to our knowledge on the subject. The principal operating cause in producing this singular effect, is the difference of the rate of cooling, in the absence of the sun, in fluid and in solid bodies. In the surface of the former the particles, as they are cooled, sink, and give place to those beneath, which then are warmer, and therefore lighter, producing thus a renewal of surface, and a very slow decrease of its general temperature, compared with those of solid bodies, whose particles are motionless among themselves. When these on their surface are cooled, they remain in their place, and are affected by the superior warmth of the internal particles, only in the degree of the conducting power of the body. And this conducting power is found to be extremely feeble in most of the substances which form the solid crust of our globe.

These conditions being understood, it will be easy to imagine, that the portion of the atmosphere which reposes on the surface of water, will continue warmer after sunset on a clear night, than the contiguous parts which rest upon the adjacent land. From its position, too, with regard to an aqueous surface, it will also obtain a greater load of moisture. If we now suppose the cooled air of a superior stratum to descend in the usual manner upon the masses of air lying upon the earth and the water, which, though closely adjoining, are, with regard to heat and humidity, very differently compounded, we shall find that its descent might produce little or no visible change in the land stratum, while, by its superior weight, it would fall into and partially displace that over the water, intimately intermixing with it, and condensing its moisture, and thus creating in the air a visible river or lake of vapor, whose boundaries in a still night would exactly coincide with the banks of the water beneath, however irregular their outline. Mr. Harvey observed a mist of this kind hovering in a beautiful stratum over the stream which supplies Plymouth with water. The mist moved in the direction of the running stream, but with a velocity much greater, while it accommodated itself, in a most singular manner, in its course, to all the turns and windings of the channel. The breadth of the mist was nearly the same as that of the stream, and its average altitude about five feet. The water of the stream was observed to stand at 56°, the air over the water 47½°, the ground near the mist 45°, the air above it 49°.

The following facts also corroborate the view we have taken of the theory of the formation of mists over water. Sir H. Davy, on descending the Danube during three nights in June, 1818, observed, that the mist regularly appeared over the water in the evening, when the temperature of the air on the shore was from 3° to 6° lower than that of the stream, and that it as regularly disappeared when the temperature of the atmosphere on the banks surpassed that of the river. At six o'clock in the morning of the last day mentioned, Sir H. Davy observed, at the junction of the rivers Inn and Ilz with the Danube, the respective temperatures of the water of the three rivers, and that of the air on the land. He found them, and the existing state of the atmosphere over the waters, to be as follows:—

Temperature of the air on land.	Temperature of the Rivers.	State of the atmosphere over the Rivers.
	62° Danube.	Thick fog on the whole breadth.
54°	56° Inn.	Dense mist ditto.
	55° Ilz.	Light mist.

This observation strikingly exhibits the precipitation in its varied proportion produced by the intermixture of the cooler air of the land with that of the floating strata of air over the rivers, at their different temperatures.

If we suppose that we have enumerated above all the causes of the formation of mists, it would be difficult to account for the fact of mists increasing in density and extent after their first formation, or for their continuance after the difference of the temperatures of the air and water had been reduced to nearly nothing. It is evident that the conditions we have mentioned are not sufficient for the production of this effect, which yet may often be observed. Sir H. Davy thinks that this increase and prolonged existence depend, not only upon the operation of the causes which originally produced them, but likewise upon heat which is evolved from the superficies of the particles of water composing the mist. This produces a descending current of cold air in the very body of the mist, whilst the warmer water continually sends up vapour. This decrease of temperature in the middle of the body of mist was remarked also by Mr. Harvey, during a dense mist, which shrouded not only over the whole of its surface, but the adjacent country also. As the part crossed was nearly a mile in breadth, many opportunities presented themselves of remarking the temperatures of the water and the mist. The river was uniformly 53° all over its surface; on the eastern shore, and for three hundred yards across the temperature of the air was 42°; as the middle of the river was approached, it subsided to 41°, and again gradually rose until, on the western bank, it had arrived to 43°; the air in the fields close to the river was 42°.

A current of dry air, however, appears to have the effect of suspending all these operations, even where the relative conditions of the water and the air might be supposed to be very favourable to them. Sir H. Davy, during his Danube voyage, observed, that during a strong easterly wind no mists were formed, when the water was 61°, and the air but 54°; a remarkable contrast to the case of the rivers Inn and Ilz before mentioned, where the difference of a degree or two only was marked by deposition. Mr. Harvey repeatedly observed this effect of dry air at Plymouth.

The peculiar odor which prevails in some fogs, has never yet been satisfactorily accounted for.

RAIN, HAIL AND SNOW.

The water which we see descending from the clouds, in the fluid state of drops, or crystallized in snow, or congealed in hail, is in the final stage of that perpetually recurring journey, which some portion of this element is constantly performing through the atmosphere of our planet.

Lifted up, perhaps, from the surface of some remote ocean, by the process of evaporation, into the region of the winds, and subjected to a play of temperature infinitely varied, it may, by the changes of its locality, have presented its beautiful evanescent apparition to all the nations of the earth, before that junction of coincidences happened, which produced its fall at our feet. This last change, which preceded and terminated its aërial career, was but another effect of the same extensively operating cause which produces, in the transparent atmosphere, the deposition of those minute particles of water which constitute a cloud, and which, when greatly increased in energy, assembles and pours them in *rain*.

"The profuse precipitation of humidity which has received this appellation, is caused by a rapid commixture of opposite strata of air of different temperatures. The action of swift contending currents in the atmosphere, brings quickly into mutual contact vast fields of air over a given spot. The separation of moisture is proportionally rapid and copious; the particles conglomerate, and in temperate weather the deposition descends to the earth in the form of *rain*. In the cold season the aqueous globules, freezing in the mid air into icy spiculæ, collect together during their descent, and become converted, ere they reach the earth's surface, into flakes of *snow*. *Hail* is formed under different circumstances, and generally in sudden alternations of the fine season, the globules of rain being congealed during their fall, by passing through a stratum of dry and cold air.

"The drops of rain vary in their size, perhaps from the 25th to the 4th of an inch in diameter. In parting from the clouds, they precipitate their descent till the increasing resistance opposed by the air, becomes equal to their weight, when they continue to fall with a uniform velocity. This velocity is, therefore, in a certain ratio, to the diameter of the drops; hence thunder, and other showers in which the drops are large, pour down faster than a drizzling rain. A drop of the 25th part of an inch, in falling through the air, would, when it had arrived at its uniform velocity, only acquire a celerity of 11½ feet per second; while one of 4th of an inch would acquire a velocity of 33½ feet.

"A flake of snow being, perhaps, nine times more expanded than water, would descend thrice as slow. Hail-stones are often of considerable dimensions, exceeding sometimes the length of an inch; they may, therefore, fall with a velocity of 70 feet per second, or at the rate of about fifty miles in the hour. Striking the ground with such impetuous force, it is easy to conceive the extensive injury which a hail shower may occasion in the hotter climates. The destructive power of these missiles in stripping and tearing the fruits and foliage, increases besides in a faster ratio than the momentum, and may be estimated by the square of their velocity multiplied into their mass. This fatal energy is hence as the fourth power of the diameter of the hail-stone."* The celebrated Volta referred the formation of hail to the play of electricity among the clouds, and upon this theory proposed the erection of *paragrêles*, or hail-rods, in countries much exposed to the ravages of hail-storms. These, upon the same principle as lightning rods, were to consist of loftly poles tipped with metallic points, and having metallic wires communicating with the earth. By this subtracting superabundant electricity from clouds, Volta imagined that the formation of hail would be prevented. These *paragrêles* have been tried in Switzerland upon an extensive scale; but their success has not been proportionate to the expectations which were formed from a minute experiment.

The average quantity of rain which falls in the course of a year, in the neighbourhood of London, according to Mr. Daniell's observations, amounts to 23 1-10 inches, or, if collected, it would form a sheet of water of that depth. The registers of the rain which have been kept in various parts of the United Kingdom, have given results which have excited some doubt of their accuracy. Mr. Leslie thinks, that "in general twice as much rain falls on the western as on the eastern side of our island, and that the average annual quantity may be reckoned at 30 inches. According to this estimate, the whole discharge from the clouds in the course of a year, on every square mile of the surface of Great Britain, would, at a medium, be 1,944,633, or nearly two millions of tons. This gives about three thousand tons of water for each English acre, a quantity equal to 630,000 imperial gallons."

The contributions of the several months to the production of this quantity, are stated by Mr. Daniell, and recorded in the British Almanac, to be in the following proportions:

January	1.483	July	2.516
February	0.746	August	1.453
March	1.440	September	2.193
April	1.786	October	2.073
May	1 853	November	2.400
June	1.530	December	2.426

The greatest average quantity, therefore, falls in July, and the smallest in February.

In comparing quantities which fall in the twenty-four hours, which constitute a day, the result of experiment shows that a greater amount of rain falls while the sun is below, than when above the horizon.

One very remarkable circumstance attending the fall of rain, is, "that smaller quantities have been observed to be deposited in high than in low situations, even though the difference of altitude should be inconsiderable. Similar observations have been made at the summit, and near the base of hills of no great elevation. Rain gauges placed on both sides of a hill at the bottom, always indicate a greater fall of rain than on the exposed top."*

If the whole of the waters which fall from the heavens were to return again, the evaporation from the ground might be sufficient alone to maintain the perpetual circulation. But more than one-third of all the rains and snows are carried by the rivers into the ocean, which must hence restore this continued waste.

THE FARMER.

BALTIMORE, FRIDAY, DEC. 24, 1830.

SILK IN BAVARIA.—Above two millions of sapling mulberry trees are thriving in Bavaria. A full grown tree yields a hundred pounds weight of leaves, but only one half is gathered in a season; so that the proprietors of these nurseries, if all the trees attain to maturity, will glean one hundred million pounds of leaves annually. The worms from a pound of eggs, when properly fed, consume half a ton of leaves, and yield at least fifty pounds of cocoons, or five pounds of wound silk. The product of these 2,000,000 of trees, if nothing hinder their prospering, will therefore amount to 500,000 pounds weight of silk, in value from £500,000 to £1,000,000 sterling.

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The above is a remarkable paragraph, remarkable alike for its abundance of errors and the gravity with which it speaks on a subject of which its author evidently knew nothing. It is one among a thousand, however, equally absurd, which are continually occupying the columns of the newspapers. We have selected it for remark, more for the sake of putting our agricultural friends on their guard against impressions imbibed from such paragraphs than for any pleasure we can derive from the criticism. It is said in this paragraph that "the worms from a pound of eggs consume half a ton of leaves." We have the authority of Dandolo, who made ample experiments to test the fact, for saying, that the worms from one ounce of eggs will consume 259 pounds of leaves; consequently those from a pound will require 4144 pounds—four times as many leaves as the paragraphist would have us believe. But the worms from a pound of eggs will *"yield at least* 50 *pounds of cocoons or five pounds of wound silk."* If the first error was calculated unduly to raise the expectations of new beginners, this latter would depress them below zero, when informed, that the worms from a pound of eggs would constitute the stock of a very large establishment. Twenty-five ounces of eggs is the highest number in the largest European establishments, and require a building about 90 feet long and 40 wide to contain them. A pound of eggs will yield six hundred and forty thousand worms, and these, if well fed and properly attended will yield about *fifteen hundred pounds of cocoons*, or *one hundred and fifty pounds of wound silk*, instead of fifty pounds of cocoons and five pounds of silk. It is also calculated that a full grown mulberry tree will supply 5,000 worms with food. We have two trees that do so annually, consequently, the two millions of trees planted in Bavaria will feed ten thousand millions of worms, when full grown; and these will yield 23,437,500 pounds of cocoons, or 2,343,750 pounds of wound silk, and the value of the silk, as estimated in the paragraph under notice at from one to two pounds sterling per lb., would be from 2,300,000 to 4,600,000 pounds sterling—or from $10,416,666 to $20.833,333.

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* Leslie.

*Leslie.

If editors would take a little pains to inform themselves on such subjects, before they commit their effusions to the press, they would save the public mind from many gross errors—and the writer of this, the trouble of correcting them.

Mr. Smith: *Columbia, So. Ca. Dec.* 10, 1830.

Sir,—The lovers of horticulture have lately sustained a most severe loss by the death of Mr. Andrew Parmentier, late proprietor of the Horticultural Botanic Garden at Brooklyn, near New York. The loss we have sustained is not a common one, for he was not an ordinary man: for, to science he joined an uncommon degree of industry, taste and skill. The conquest over nature which he has achieved at his garden at Brooklyn, proves his skill and perseverance. These virtues, admirable as they are, were crowned in him by a sense of *honesty*, *probity* and *honor*, that bring to mind, with emphasis, this truth: "*that an honest man is the noblest work of God.*"

I learn with pleasure that his widow, for herself, and her fatherless children, is induced by their friends to continue the establishment, for the formation of which, considerable expenses have been incurred, and no or few profits as yet realized.

I know the American public too well to believe for a moment, that they will suffer the widow and orphans of departed worth to suffer neglect and consequent poverty; but, on the contrary, that they will, duly encourage their honest endeavours in their most useful vocation.

I am, sir, very respectfully, yours, N. H.

Prices Current in Boston, Dec. 17.

Apples, new, bbl. 1.38 a 1.50. *Beans*, white, bushel, .90 a 1.10. *Beef*, mess, bbl. 8.00 a 8 .50; cargo No. 1, 6.50 a 7.00; No. 2, 6.00 a 6.25. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 5.75 a 5.87; Genesee, 5.62 a 5.87; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .63 a 65; Rye, .68 a .71; Barley .58 a .60; Oats 36 a 38. *Hogs-Lard*, 1st sort new, lb. 10.00 a 11.00 *Pork*, clear, bbl, 16 a 17; Navy, mess, 12.00 a 12.50; Cargo, No. 1. 12.50 a 13.75; *Seeds*, Herd's Grass, bu. 1.75 a 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb..33 a. 38; White Honeysuckle Clover, 25 a .38; Red do. Northern, 10 a 11; French Sugar Beet —— Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .50 a 62; do. do unwashed, .30 a .35. Merino mixed with Saxony, .62 .67; Merino three fourths washed, .52 *a* .57, do. half blood, .47 *a* .50; do. quarter, 37 *a* 40. Native, washed .36 a .38; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .40 a .42; Pulled Spinning, 1st sort, 45.

Prices Current in New York, Dec. 18.

Beeswax, yellow .19 a 21. *Cotton*, New Orleans .11½ a .13; Upland, .9½ a .11½; Alabama, .10½ a 12. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax 12 a 16; *Flax*, American, 7 a 8.—*Flaxseed*, 7 bush. clean 10.62½ a 10.75,—*Flour*, N. York, bbl. 5.00 a 5.12½; Canal 5.12½ a .5.37½ Balt. Hwd. st. 5.37½ a 5.50; Rh'd. city mills 5.69 a 5.75; country, 5.12½ a 5.25; Alexand'a, 5.12½ a 5.25; Fredericksburg 5.00; Petersburg, 5.12½ a ——; Rye Flour, 3.25 a 3.37½; Indian Meal, per bbl. 3.25 a ——; per hhd. 14.50 a 14.75. *Grain*, Wheat, North, 1.06 a 1.07; Vir. .98 a 1.04; Rye, North, 70 a 73; Corn, Yel. Nor. .54 a 63; Barley, 76 a 78; Oats, South and North, .27 a .36; Peas, white, dry, 7 bu. –. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 7.87½ a 8.50; prime 5.12½ a 5.50; cargo 4.25 a —— Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 8. a .9; Pork, mess bbl. 13.50 a 14.00; prime 9.00 a 10.12½; cargo ——.

BARTRAM BOTANIC GARDEN AND NURSERY,

Kingsessing, near Philadelphia.

This old and celebrated establishment is 4 miles from the Centre square, three miles from Market-street bridge, and a half mile below Gray's ferry, on the west bank of the Schuylkill. It is the oldest botanic garden in the United States, having been begun in 1720 by the elder John Bartram, who was the American botanist to the king, until the Revolution, and it has since been cultivated by his children and grandchildren.

The garden originally contained about eight acres, chiefly planted with native trees, shrubs, &c. and became the seminary from whence American vegetables were distributed to Europe, and other regions of the civilized world.

The present proprietor has added an extensive collection of green house plants, a thriving young vineyard, and several acres of nursery, well stocked with a general assortment of the finest fruit trees, grape vines, ornamental trees and shrubs, &c. which are sold at reasonable prices, and are sent to all parts of the United States.

American indigenous trees, shrubs, and plants, or their seeds, suitable for sending to Europe, are supplied in assortments from $5 to $500, or more.

Orders for trees, plants, or seeds, from this garden, left with Messrs. G. Thornburn & Son, seedsmen, New York; George M. Coates, No. 49 Market-street, Philadelphia; Gideon B. Smith, office American Farmer, Baltimore, Md. or addressed, per mail, (post paid) to the proprietor, at the garden, will meet with prompt attention, and the articles will be carefully packed, so as to bear the transportation in safety.

Strangers are invited to view the gardens at any time, (Sundays excepted,) where any information will be cheerfully imparted.

Printed catalogues of the collection delivered gratis.

ROBERT CARR, *Proprietor*.

PARMENTIER'S GARDEN.

The widow of the late Andrew Parmentier, having determined to continue for the benefit of her children the establishment upon which her deceased husband expended so much both in time and money, solicits a continuation of the patronage of the public. Measures have been taken to secure accuracy in the putting up of orders, and generally the same punctuality and correctness which marked the course of the deceased Mr. Parmentier, will be continued. This establishment comprises as usual, a full assortment of *Fruit and Ornamental trees and Shrubs, Grape Vines, Greenhouse plants, &c.* at moderate prices. Catalogues furnished gratis, and orders received, by Gideon B. Smith, office of the American Farmer, Baltimore.

AGRICULTURAL WAREHOUSE AND SEED-STORE.

The Subscriber desires to express his grateful acknowledgments to a generous public, for their liberal patronage,—with assurances, that no exertion on his part shall be wanting, in future, to render his establishment an advantage to the public, which has been considerably increased during the present year. He is the only Agent in the city for Gideon Davis, and has on hand a full assortment of his improved Patent PLOUGHS—the increased demand for which, proves the great perfection to which he has brought that useful implement; and he is at all times prepared to furnish the CASTINGS for said Ploughs, to supply the place of those worn out.

He has also on hand, a variety of Improved PLOUGHS suited to the variety of soils; and left-handed ploughs—together with a general assortment of IMPROVED AGRICULTURAL IMPLEMENTS, and wove wire to suit the various purposes for which that article is used. The Subscriber's Patent CYLINDRICAL STRAW CUTTERS, he believes, have never been surpassed in any country; and desirous to bring them into more general use, he has reduced the price $5.—He will also receive orders for THRESHING MACHINES, constructed on the Spike principle, which he believes the best now in use. Early application should be made by those wishing to procure them for the coming season, as it requires time to procure suitable materials; and as machines of this description built in a hurry seldom give satisfaction; he has one on hand finished.

☞ All communications by mail (post paid) will receive prompt attention. J. S. EASTMAN,

No. 36 West Pratt street, Baltimore, between Hanover and Charles streets.

GARDEN SEEDS, &c.

The Subscriber has on hand at the office of the Farmer, a full assortment of fresh garden Seeds, among which are some rare kinds, such as Swiss Chard, Chick Pea, fresh Cuba Tobacco, Cow Cabbage, &c. Also Fessenden's New American Gardener, price $1, Prince's Treatise on the Vine, $1.50, do. on Horticulture 75 cents, Hind's Farriery $1, Mason's Farriery, new edition $1.50. GIDEON B. SMITH.

BALTIMORE PRICES CURRENT.

Baltimore Market.—Flour and wheat remain about the same as last week, with a pretty good business doing. The wagon price of Howard street flour is $4.87½. Corn, rye, and oats have varied in price but a trifle. Beef has advanced a little and our highest rate would be obtained for prime. Drove pork has not sustained itself in the advance of last week, but has declined to our present rates.

Tobacco.--Seconds, as in quality, 3.— a 5.—; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 295 hhds. Maryland; and 5 hhds. Ohio; 4 hhds. Pennsylvania; total 304 hhds.

Flour—best white wheat family, $5.25 *a* 5.75—super. Howard-street 5.00 *a* ——; city mills, 4.75 —Susquehanna, 4.87½ *a* 5.00; Corn Meal, bbl. 2.25 Grain; red wheat, 95 *a* 98; white do. 1.00 *a* 1.05---— Corn, old white, 55 *a* —-old yellow 56 *a* —-new white .— *a* .52--yellow — *a* 54-Rye, .57 *a* .59-Oats, .30 *a* 31, Beans, 90 *a* 1.00--Peas, 50 *a* 60--Cloverseed 5¾. *a* 6.00 Timothy, 2.00 *a* 2.25.—Orchard Grass, 1.25 *a* 1.50-— Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½ Flaxseed 1.18 *a* 1.20-Cotton Va. 10 *a* 10½-Lou. 11½ *a* 13½ —Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 11 *a* 11¾—Whiskey, hhds 1st p -— *a* 28; in bbls 28½ *a* 29—Wool, common, unwashed, lb. 15 *a* .16--— washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.–Hemp Russia, ton, $220 *a* ---–; Country, dew-rotted, 5.c.— lb. water-rotted, .7c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.00, *a* 6.25—No. 2, 5.50 *a* 5.62½--No. 3, —— *a* 3.50; Bacon hams Balt. cured 10c.-Feathers, 35 *a* —-Plaster Paris, cargo price per ton, 4.25 *a* - — ground, 1.25 *a* 1.50 bbl.–Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.50 *a* 5.00--Pork on the hoof 4.75 *a* 5.00— —Pine Wood, by the vessel load, 2.00. Oak, 3.25 *a* 3.50—Hickory, $4.50 *a* 5.00.

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AGRICULTURE.

AN ADDRESS

Delivered before the Philadelphia Society for promoting Agriculture, at its Anniversary Meeting, January 16, 1821. *By* James M. Broom, *Esq. one of the Members.*

At a meeting of the Philadelphia Society for promoting Agriculture, 1st mo. 16th, 1821, in pursuance of appointment, James M. Broom, Esq. delivered the Annual Address, whereupon it was unanimously resolved, that the thanks of the Society be presented to him, for his able discharge of the duty assigned him, and that he be requested to furnish a copy for publication. Extract from the minutes,

Roberts Vaux, *Secretary.*

Mr. President and Gentlemen:

I approach the station which you have assigned to me, with an apprehension that I shall not fill it in a manner commensurate with your expectations, or worthy of the distinguished gentlemen who have preceded me. The only merit I shall claim is that of yielding to your wishes.

It seems to be proper upon our anniversary, to survey the condition of the field of our labour; to note the progress made; to draw salutary lessons from our experience, either for encouragement or admonition, and to inquire what remains to be done for the advancement of the great objects we have in view.

The recent change in the condition of our country, which has reached not only every public department, but even the bosom of our families, merits by its importance an inquiry into its causes and remedy.

In a country abounding in the necessaries of life, with a government securing every one in his just rights, and with a comparatively virtuous and enlightened population, we can never be long without a remedy for any evil. The pressure of circumstances will but give force to character, and we shall only have to resolve, to be able to act like men.

The Lilliputian ties with which fashion has hitherto bound us, must be broken. We shall then rise disenthralled, to a just appreciation of our condition and of the means of extrication.

The late wars of Europe, unexampled for magnitude and duration, did not allow the continental nations to pursue the arts of peace. Their efficient population for five-and-twenty years may be said to have lain on their arms. Their agriculture and manufactures were therefore neglected, and being shut out from the sea by the maritime superiority of Great Britain, commerce was denied to them except through others. We had an overflowing country, and fed them from our abundant stores. We carried to them the manufactures of other nations for their clothing.

We had ships and seamen, and pursued for them their commerce with their colonies and with each other.

The effect upon our country was wonderful. Every sea port was full of life and activity; the ocean was covered with our ships, and the American flag, till then nearly unknown, was seen with surprise and admiration in almost every port of the world.

Fortunes sprang up among us with a mushroom growth. The merchant who went to bed insolvent, often arose in affluence, and wealth poured in upon us in a strong tide, confounding the relative situations of our citizens, and exhibiting all the fantastic caprices of the fickle deity.

The temptation was too strong to be resisted. The farmer left his plough and the mechanic his shop, to take his chance at fortune's wheel.

The blanks were forgotten and the prizes only kept in view, until adventure became the grand impulse of the nation. The counting houses were filled with young men inflamed by the golden prospect. The dull pursuits of agriculture were too grovelling for genius, and the sprightly ploughboy was soon transformed into the spruce clerk. The current set to the cities with irresistible force, and youth without education or money, were content to learn some handicraft connected with commerce.

The extravagant and unlooked for prices of agricultural produce, wrought an effect on the country, which I fear can only be repaired by years of severe mortification and self denial.

It is enough at this moment to say, that both town and country were well prepared for the luxury and dissipation, which prosperous commerce generally brings in its train.

The farmer, hitherto content to labour, could now employ others in his stead, and the habits of his family, from a natural proneness to indulgence, soon became changed.

There were now time and money to employ in the decoration of the house thrown open to society. The cumbrous chest, from whose secret till the pounds, shillings and pence had been extracted with frugal parsimony; the corner cupboard, through whose glass doors the shining cups and spoons had reflected their splendour on the family; the oaken table, which had maintained its station unmoved for ages, and around which the bond and free had assembled with merry faces to their meals, all disappeared, and in their place were displayed the polished sideboard, glittering with glass and silver; the mahogany table and the variegated carpet, not to be soiled by the touch or tread of the labourer, and the sopha, where the limbs tired, not by labour, but by the want of it, were stretched out in pursuit of insensibility; the home-made lindsey garments, now no longer hung around the rooms as trophies of the industry of the girls, and the stockings of the family no longer grew under their fingers; but the drawers of their bureaus were crowded with silks and muslins, and the floss cotton bloomed into flowers upon the fine webs of India, under the fair hands of the young ladies; the hum of the wheel subsided into the notes of the piano; the side saddle, pillion and light wagon, were laid aside for the gig and coach, and the plough horses, instead of dragging the family to church on Sunday, were allowed their promised rest; a constant round of society filled up the measure of employment, and the intercourse became daily more polished and refined; cosmetics and washes took off the brown hard skin of labour; the corset fitted the shape for the transparent dress, and the waving plume crowned the modern nymph.

To this change of dress and manner of living, succeeded a change of ideas and language. Nights and days were spent in sighing over the distresses, and rejoicing in the deliverance, of the heroine of a novel. Thus taught to feel, the young ladies would almost expire over the agonies of a dying chicken, which a few months before they would have killed and cleaned and eaten.

Initiated into the follies of fashionable life by these wonder-working books, they spoke, they breathed the language of sentiment. With a fancy fashioned for the gay Mercutio, their ears were deaf to the rustic phrase of love. The sober industrious youth must become the fine gentleman or lose the fine lady. How fatal to the interests of agriculture such struggles have been, I must leave to your own recollections. I have long deplored them, and, therefore, hope to be excused for the ridicule which I have endeavoured to cast on manners, which cannot be so readily assailed by sober reason. The gentleman farmer thus made by the influence of the ladies, confided to others the management of his farm. Agricultural improvements forced upon his attention, and the high price of products encouraged him to visionary speculations. He saw every thing rising in value, and added farm to farm upon a borrowed capital, calculating upon paying in a few years from their own products. The depreciation of money was accelerated by the establishment of a bank in every village. Every adventurer thus appeared to have made a fortune by his speculations, and lulled himself asleep filled with pleasing anticipations.

The bubble however burst; and Europe, exhausted by her convulsions, sunk into peace.

Agriculture revived, and brought abundance in her lap.

Our farmers awoke as from a dream, and the golden vision flitted from before their eyes.

They saw ruin and misery in the train of their speculations, from which nothing could save them but famine or war among foreign nations, and these it were impious to wish for.

Even the abundance with which a kind Providence has blessed the past season, scarcely enlivens the gloom, and the general inquiry is, where can we look for relief?

Could my feeble voice be heard, I would cry *retrench.* I would conjure my countrymen to fall back to the frugal habits which they have abandoned; and if they cannot give their children fortunes, at least to leave them with habits to acquire them. I would encourage those who are or may be dispossessed of their lands, to trust to industry and economy for their redemption; and to keep the prize always in view; I would assure them, that one set of habits as invariably tends to the acquisition of fortune, as the contrary does to the dissipation of it. I would tell them that they will be more happy with an industrious family around them, than with an idle one, and that limited means bind a family closer together, and increase by their pressure the spring of action, while prosperity is too often the nursery of passions and habits fatal to domestic peace.

I have already noticed the extraordinary crowds which a wonderfully prosperous commerce attracted to our cities. It is now my painful duty to warn them to return.

The nations of the world have resumed their natural trade. They no longer need our aid, and each has plucked the feather from our wings which it lent us. Our commercial establishments are all too large for the trade which is left, and a part of those engaged in them must retire; but each is struggling to be the last, and, in the contest, all become weaker. Such is the nature of commerce, that it feeds on hopes and anticipations, and will be pursued when no rational expectation of success can be entertained. Thus, every one is in the way of his neighbour, and all cling to the wreck of commerce, as if existence were only in the grasp.

I know that the struggle is painful, but while a remnant of fortune remains, while health, vigour and activity are unimpaired, it is better to fly to the country. This great alma mater opens her bosom to us; she never resents our desertions, but receives the returning prodigal, and kills for him the fatted calf.

It is humiliating to our pride, "sed tempora mutantur et nos mutamur cum illis."

If we nourish the hope of returning commerce, we should be able to look to the quarter from which it is to come. But who can discern even the slightest appearances? If this hope should fail, what will be the situation of that class who have depended on it? They may be overtaken by age and infirmity; the vigour of life may be impaired by deferred hope, which maketh the heart sick; they may be thrown upon the world, impoverished and unsupported by friends who have either forsaken them in their decline, or have paid the debt of nature, or perhaps, who are as helpless as themselves. It may then be too late for them to take root in a strange soil; too late to change their own habits, and those of their families; and they may be left with the bitter, but unavailing regret, that they did not yield in time to the convictions of their understanding. How different might have been the picture had they abandoned the vain pursuit of trade in due season.

Invigorating labour might have renewed their years; their children might have grown up around them a healthy race, preserved from the snares of vice, which, in a large city, are spread in the paths of youth, and been the comfort of their declining years.

It is true, that a country life has its cares and troubles; but there are no wants there which industry will not supply. It is the most simple and virtuous life we can lead. It teaches us to be provident, and shows us how few our real wants are. It points directly to God as the author of good; for after we have planted and watered, we see and feel that it is from his hand we receive the increase.

The general sense of enlightened nations has decidedly approved of societies for advancing the public good. The concentration of knowledge, the generous emulation which is excited, and the distribution of labour among the members, co-operate to give to theirs a decided pre-eminence over individual exertions.

We all feel and acknowledge the powers of association when men are combined to do evil, let us then avail ourselves of them when the object is to do good.

Societies in Great Britain have excited an attention to agriculture, within the last thirty years, which have roused all classes to a spirited co-operation in the cause, and given a new face to the country.

In the United States, within a few years, they have multiplied rapidly, and enrolled among their members our most distinguished citizens, who feel a laudable pride in contributing their stores of scientific and practical knowledge for the advancement of agriculture. This society has subsisted for thirty years, and furnishes a happy illustration of the advantages of such institutions. It has been long distinguished not only at home but abroad; by its zealous exertions, and may be traced in this commonwealth by the introduction of agricultural improvements, which have contributed in no small degree, to raise her to the first rank in the union.

I shall not attempt to detail them, as our Memoirs furnish the most ample evidence; but I trust I shall be excused for noticing, for the sake of example, the meritorious exertions of this society in the single instance of introducing the use of gypsum to our farmers.

The situation of the old settled parts of the state at that period, was truly deplorable. The vegetable soil which had accumulated for ages under the shelter of the forests, having been exhausted by improvident tillage, the inhabitants awoke to all the miseries of an impoverished country. To cultivate the old fields, thrown out as waste, would have been a desperate undertaking. Some were obliged to emigrate, the remainder looked for support to their meadows, and to the cultivation of the few acres which these would enable them to manure. Even the meadows were failing, from their continual contribution to the upland, without a return.

Thus struggling for a scanty subsistence, the inhabitants little imagined that their barren hills and waste fields were to become the road to fortune.

At this moment the effects of gypsum, were discovered in Europe, and this society, sensible of its value, lost no time in endeavouring to bring it into general use.

It found deep rooted prejudices to be overcome, but knew that, in the end, they must yield to demonstration. It offered rewards for experiments, to test its utility. Its members individually made them, and gave the results to the public, and after persevering efforts, gypsum was every where acknowledged as the grand restorer of exhausted nature. The poor hills and plains were soon covered with the luxuriant clover. The flocks and herds multiplied with amazing rapidity, and the farmer was surprised with abundance, when the hope of subsistence had almost fled.

The ploughshare was no longer suffered to rust, nor the wagon to be idle.

Spacious and substantial barns were provided for these abundant products and increasing stocks, and dwelling houses, abounding in every convenience, soon followed.

With this new order of improvements, a new race of people seemed to spring up, for hope and animation had succeeded to general despondence.

I do not envy the man who can survey such a scene without emotion.

I hold that patriotism cheap, which would swell at the recollection of a bloody triumph, and slumber over an almost new creation, which redeems a people from despair, and spreads smiling plenty over the land.

It would require the pen of a Fenelon to do justice to this subject. What he imagined, we have seen. Even a Mentor is not wanting to complete the view. One, who by his wise labour, has secured to himself the gratitude of his country, and a permanent place among the great benefactors of mankind.

I may have invaded his honours in giving to this society the merit which they owe so largely to him; but I know that his regard for us increases with his years; and I trust he will feel as a parent does at hearing the praise of his children.

No one can appreciate the importance of agricultural societies by the good which they have done, for the improvements of agriculture are yet in their infancy.

Ancient and important as this art is, it is but beginning to call in the aid of science and of combined effort. It might seem to be superfluous to endeavour to demonstrate the utility of agricultural societies, when it seems to be generally acknowledged, but there is so much supineness in this state on that score, that I apprehend they are not duly appreciated; otherwise, why should a law, authorizing their formation in every county of the state, and assigning to them liberal funds, have remained for a year a dead letter on the statute book?

At a moment when the spirit of improvement is active all around us, we must keep pace with our neighbours, or we shall fall behind them. The application of chemistry and other sciences, to agriculture, has opened a field for the most extensive exertions; and I believe they cannot be so effectually encouraged and protected as by societies.

Formed out of all classes, they will concentrate the information of the whole. They will invite experiments, compare results, and thus test theories by practice.

Having made a few observations, tending to point out the necessity of agricultural societies, allow me to suggest some remarks on subjects which might profitably occupy their attention.

The introduction of labour-saving machines into agriculture, in a country where the territory is vastly great in proportion to the population, is obvious. Such machines cannot too early receive attention.

They have advanced the mechanical arts to great perfection, and have added surprisingly to the wealth and resources of those nations that have adopted them. They furnish labourers that do not consume the fruits of the earth, that never tire nor sleep, and that work with an exactness and uniformity, often beyond the competition of the most skilful hand. Important as they are in the arts, they may be quite as much so in agriculture. Our unoccupied country is not only of incalculable extent, but it holds out the most encouraging invitations to cultivation, of which we have not the population to avail ourselves.

Let one man be able to do the work of many, and a different scene might soon be presented. The progress of human labour in settling a wilderness is slow, and often discouraging, and the difficulty of procuring it so great, that men are content to subsist for years on the produce of a few acres around their cabins, waiting for the growth of children, or some other accession of strength, to aid them in extending their limits.

Let no one say that these difficulties may not be overcome by machinery. This is the age of invention, and machines as wonderful as unforeseen are now in operation.

In the arts, successful invention opens directly to fortune, and instead of being difficult to introduce, are sought after with avidity. Not so in agriculture, although it is quite as important, and followed by a more numerous and wealthy class. The cause is to be found in the system which prevails in the one case, and the want of it in the other.

Manufacturers make their business more a matter of study and calculation than farmers. They can consequently more readily discover the advantage of adopting improvements; their population is more compact, and they oftener meet together, and compare results; and, in short, from having daily before their eyes the operation of improvements, they are not so liable to be impeded by inveterate prejudices.

It is for societies to remedy these evils, for all are within their reach. From their opportunities of observation and examination, they could compare the efficacy of machines better than individuals; supply the requisite calculations, and keep the results continually before the public eye, until they should prevail over the most obstinate prejudices.

I admit the difficulty of removing the prejudices of farmers, for they are imbibed in childhood, when they are taught to work after the fashion of their fathers. Hence, any new mode is awkward, adopted with reluctance, and often abandoned before it is half learned, or fairly tried.

Every farmer knows, that by the usual mode, he can produce a certain result, with which he contents himself, rather than run the risk of losing his labour by an experiment, however promising, in the prospect.

He keeps hands enough to work his farm in a succession of crops, calculated to give constant employment. If labour-saving machines were introduced, the same hands might perform many times as much labour, which might be directed either to the increase of products, a partial manufacture of those produced, so as to increase their value and lessen the expense of transportation, or to the many improvements which almost every farmer promises yearly to have done, but finds to be crowded out by more pressing matters.

He might, for instance, drain and clear his low ground and swamps, offensive to the eye, the source perhaps of unhealthiness to his family, and which shut up a treasure, of which he has not energy to possess himself. He might remove the rocks which have been in the way of him and his ancestors, impeding their ploughs, encumbering their ground, and standing as a monument of neglect. He might plant and enclose trees for fruit, timber, or shade, irrigate meadows, level grounds, and perform an endless variety of matters, for which, in the present state of agricultural implements, he can neither find time nor money.

Why should we despair of our inventive skill, with respect to agriculture, when it is so conspicuous in every department where it is properly encouraged?

We are not to limit our view to machines already in use, but we may extend it to those which it has not entered into the imagination of man to conceive, but which may be calculated not only to improve lands, but to introduce crops now entirely abandoned.

The invention of the cotton gin, has given a value to the poor fields of the southern states, not only unlooked for by their possessors, whom it has raised to affluence, but a value in a national view, by the increase of our exports of an article, which furnishes now the principal means of payment to other nations.

The culture of flax in the United States is very limited, chiefly because of the tedious, difficult, and laborious process which it must undergo, before it is fitted for the hands of the manufacturer.

A machine has now been invented, by which all this process can be completed at the instant it is taken from the field, and with superior advantage to texture and colour. The demand for this article always ensures it a market, and we have territory sufficient to produce not only enough for our own supply, but in our turn to supply others. The attention of societies, if directed to this machine, might bring it into general use, and thus create for us a new source of wealth.

I have mentioned these two instances, with a view to show that objects of the most difficult, if not apparently impossible, execution in agriculture, may be accomplished by human invention, although not dreamed of in our philosophy.

We may, therefore, be encouraged to hope for similar improvements in other branches which may in like manner add to the wealth and resources of our country.

At this moment it is peculiarly proper to call into exertion every faculty we have, to make up for the loss of a market for our great staple.

When the wars in Europe called for our provisions, our attention was chiefly directed to raising them; and being now no longer in demand, we have but little in hand to pay them for those things which we were accustomed to receive in return, and which our habits have unfortunately made too necessary to us.

Societies might, therefore, direct their attention toward the cultivation of such of them as could be accommodated to our country.

We have almost every variety of soil and climate necessary for their production. We have skill and industry equal to any, and a population not to be surpassed in enterprise, and are moreover free from a necessary entanglement with the wars of other nations.

Who cannot perceive that we are qualified, by our great natural and political advantages, at no very distant period to take the first rank among the nations of the world? But it can only be by improving the advantages we possess, and uniting cordially in the grand design of cherishing agriculture as the basis of our national prosperity.

The attention of societies can do much towards this object, not only in watching the course of improvement abroad, but in encouraging it at home. We all acknowledge that much is yet to be learned about the improvement of soils. To teach the rich how to enrich their lands, does not seem so great a desideratum, as to teach the poor how to do so from means within their reach. The wealthy can draw resources from every quarter, and if they cannot get adequate returns for their remuneration annually, can call their expenditure profitable investment. But the poor man must draw upon such resources as he has, which are generally such as are common to all, and receive certain and quick returns for his labour. The analysis of soils, in this view, becomes important, inasmuch as it is found, that the union of soils, each separately indifferent, will sometimes produce a most beneficial change.

Soil and subsoil should be critically examined; a light soil may be improved by a mixture with a subsoil of clay, which is usually found within reach of the plough. The unprofitable soil on the margin of the ocean, has been impregnated with surprising fertility by a sprinkling of sea sand. Stiff and cold clay has been rendered friable and surprisingly fertile, by the use of calcareous earths, with which our country abounds. In lands of secondary formation, beds of marle of indefinite extent are frequently discovered, and the experiments already made leave us no room to doubt of their efficacy as a manure. Nothing, however, is more uncertain than the quantities to be employed. One man finds it useless, because he has put on *too little;* another, to avoid the error of his neighbour, puts on *too much:* he also finds it useless, and it is abandoned.

Here, then, is a great field for agricultural societies. They might direct experiments, compare results, and call into action the chemical and philosophical knowledge of its members, to trace causes from effects, and thus give tests, to which practical men without science might safely trust.

From my limited observation I may point out the very common error of giving to poor land, because it is supposed to need it most, a greater supply of such manure than to richer land; whereas it ought to be distributed in an inverse proportion.

Land which is poor may be considered as in a state of debility, and the stimulus applied may sooner produce indirect debility than in a stronger subject.

I have seen the barrenness of a spot surcharged by a heap of lime; while the land around, where it has been lightly spread, has been productive, although treated in other respects alike. But I have remarked, that the same spots, after a few years, have recovered their natural strength, and have shown fertility when the other parts are almost exhausted.

It is from hints of this kind, which nature gives us, that we are to have a more intimate acquaintance with her, but we must concentrate and improve them.

The effects of burning soils are now obtruding themselves on our attention, and seem to promise a revolution in agriculture too important for any just calculation of its consequences; and the system of General Beatson, so intimately connected with them, points to results too flattering even to be named by me without more certain knowledge than I have been able to obtain.

At any rate, these discoveries and improvements ought to show us that something new to us may still be expected; that we have not arrived at such an extent of knowledge as to make us indifferent to our advancement, and that much still remains to be discovered and perfected of the highest importance to agriculture.

Let any man examine with attention the works of creation, and at every step, as he advances, he will discover more clearly the wonderful beauty and order and infinite wisdom of the Creator; and however highly he may estimate his mind when he commences his career, he will come to the humiliating conviction, that he is limited to a middle sphere, from which he is not allowed to move—that his mind is too minute for the vast, and too vast for the minute designs of Providence. We are allowed, however, to see all that is necessary for us—and more than we improve. We may see that we are, at most, but the assistants of nature. Hence we ought to take every hint to know what aid she requires from us. We see production and decomposition succeeding each other. We see that the materials necessary for the successive formation of every thing were given to us at the creation, and that the laws then assigned to matter have continued unimpaired and without alteration to this moment; that the various kinds of animals of the earth, the air, and the sea, still preserve their original marks, even to the colour of a feather; and that although they may transgress the order of things, yet the effect dies with the mongrel, and the species are, by an immutable law, preserved from confusion.

So, in the vegetable world, the order of plants remains also distinct; and the seed will, in due time, unfold with certainty the history of its parentage.

Being satisfied that there is spread abroad throughout creation, materials for every plant, we should endeavour to locate them where we require their use. Heat, the grand agent of nature, which sustains every thing while living, and destroys it when dead, raises the decomposed materials into the atmosphere: at night, when the heat is less active, they revisit the earth, nourish the plant, and fly, with the return of the sun, with all their accumulations on their journey over the earth. Thus, every plant takes what it requires, both for colour and texture.

If we can attract these materials to our plants in an increased proportion, we may accelerate and enlarge their growth.

Much remains to be discovered in this region, which is well worth our observation. Perhaps manure of certain kinds may operate, by their attraction for these gases. Lime, which has lost its carbon by fire, but which never loses its affinity to it, may, in addition to its effects on the soil, draw the carbon, and with it other gases to the plant by which it lies.

The gypsum itself may, by its sulphuric acid, attract heat from gas, and thus cause it to fall upon the plant in its vicinity. The quantity of dew always found on plastered land seems to support this hypothesis.

The continual escape of gas may point out the propriety of arresting the materials of formation, before they reach the atmosphere, and of distributing them in that stage from which the decomposed matter will proceed directly to the plant to be formed from it.

This is a great desideratum, and the diversity of opinion about green and rotten manure shows that it is not well understood.

Land, said to be sick of one kind of grass or grain, after it has frequently produced it, may yet be capable of producing another crop abundantly. Such land has perhaps exhausted itself of all those materials before spoken of necessary for that particular plant, and therefore furnishes a field of inquiry as to the nature and succession of crops. All these subjects, and a thousand others, not to be embraced within my limits, require the attention of agricultural societies, and could be properly explored and improved only by such combinations.

Having thus long obtruded upon you in endeavouring to call your attention to the former and present condition of agriculture, and to the subjects which in my view give importance to agricultural societies and demand their care, in a manner, I confess, partaking more of the nature of hints than of plans of action, I shall take my leave of you with a brief notice of a single additional subject.

We all admit that much is to be learned in agriculture, and that no branch of practical knowledge is more important, and yet, strange to tell, there is no place where youth can be taught correctly. They are suffered to grow up, acquiring knowledge by chance, confused by the many opinions which prevail between downright ignorance and the most profound knowledge, and more liable to be misled by the bold assertion of prejudice, than instructed by the modest assurance of one, who, although he knows much, feels how much is yet to learn.

Agricultural schools only can correct these evils; and looking forward to their effects in subduing prejudices, and disseminating knowledge, among such an immense mass of people as the body of farmers, I regret that we cannot have the merit of originating them. This, however, belongs to Prussia; and although it is not flattering to our national feelings to go abroad to learn, yet I, for one, am willing to take useful lessons from any part of the world.

Treatment of Gooseberry Bushes.

As soon as the leaves are all fallen, I begin pruning and dunging, if need require; I then dig the ground between the bushes, leaving the ground as rough as possible; and as the diggers are proceeding, that is, as soon as they are clear of the first plant in the row, I give the bush, from the rose of a watering-pot, at least an English gallon of the following mixture, of equal parts, viz. lime-water, chamber-ley, and soap-suds, in which I introduce as much soot as to give the composition the color and consistence of rich dunghill drainings; proceeding over the whole in this manner, without treading or poaching the grounds, in which state they remain until the winter frosts are fairly past, when I level and dress up the ground between with a rake.

This practice I have invariably performed, and have always had healthy fruitful bushes, and never in the least annoyed with any insects on the bushes so dressed.

John Naismith.

HORTICULTURE.

(From Prince's Pomological Manual.)

PEARS.

(Continued from page 326.)

Striped Long Green. *Pr. cat. Coxe.*

This is a very handsome fruit to the view, on account of the color of its perfectly smooth skin, where the green is pleasantly variegated by long yellow stripes, which extend from the summit to the base of the fruit, with some occasional light touches of red next the sun. It is thirty lines in height, and two inches in breadth, its form being a pretty exact pyramid. The flesh is melting, replete with sweet juice, which is musky and very agreeable. The seeds are brown, of oblong form, and very much pointed, and the fruit ripens at the end of September.

Green Sugar. *Evel. Mil. Pr. cat. Coxe.*

This fruit has often a turbinate form, being twenty-five or twenty-six lines in diameter, and of the same height: sometimes it is larger, and rather pyramidal in its shape, measuring thirty-three inches in height, and twenty-eight or twenty-nine in breadth. The position of the eye is nearly even with the fruit. The skin is smooth, light green, scattered over with very numerous small specks of a deeper shade of the same color: but when at perfect maturity, the green changes to a yellowish hue. The flesh is partially melting, and sweet, with more or less richness, and is quite pleasant to the taste. The seeds are brown and oblong, and the fruit ripens at the end of October. The tree is of very thrifty and vigorous growth, extremely productive, and produces its fruit in clusters. It may be propagated on both pear and quince stocks.

Vine, or Lady's. *Pr. cat.*

The form of this pear is that of a top. It is two inches in height, and two lines less in its greatest diameter, with a stem from eighteen to twenty lines in length. The skin is rough to the touch, and of a russet-grey color. The flesh is half melting and rather rich, but soon becomes mealy, and then loses its flavor. The seeds are dark brown, large in proportion to the size of the fruit, which ripens in October.

Martin-Sec. *Pr. cat. Roz. Duh. For. Coxe.*

This fruit is two inches in diameter, and two inches and six or seven lines in height, but often of smaller size: it is also pyriform, terminating in a point at the stem, which varies greatly in its length, from eight or nine lines to eighteen. The eye is close set in a small cavity, bordered with furrows and pretty distinct projections. The skin is of a russet hue, or light hazel color on the shade side, and bright red next the sun; and is scattered over with small white specks, which are very apparent upon the red part of the fruit. The flesh is breaking, occasionally somewhat gritty, in general dry, and possessing little juice. The flavor is sweet, partially perfumed, and quite pleasant. It is excellent when cooked, and then becomes of a red color, and is one of the best kinds to be stewed or preserved. The seeds are dark brown, moderately large, and long. The fruit ripens in November, December, and January, and sometimes becomes mellow pretty speedily. The tree is very productive, and can be grafted on either pear or quince. De la Quintinye and Evelyn designate two varieties; one by the title of Burgundy Dry Martin; and the other as the Dry Martin of Champagne; the latter being the best. Miller also speaks of these two varieties. Rozier remarks, that the fruit, which is of medium size, bears some resemblance to the Rousselet, but is less round at the head. It is doubtless from such similarity that this has been by some called the Winter Rousselet, as Miller intimates.

Summer Bonchretien. *Pr. cat. Pom. Mag. Mil. For.*

The following description I extract from the Pomological Magazine:

"A valuable, well known autumn pear, the origin of which is lost in the darkness of antiquity. It has been long cultivated all over Europe for the sake of the size and the delicious flavour of its fruit. By some pomologists it is supposed to be the *Regalia* of Valerius Cordus; the *Piri di Gacemella* of Agostino Gallo, and the *Domestica Pentagonum perelegans,* and *Pugillarium Bollense,* of John Bauhin. If these conjectures be correct, its origin must be dated as far back, at least, as the beginning of the sixteenth century, and probably much higher. It is quite certain that it has found a place in every work of consequence for the last one hundred and fifty years. Upon the continent it is known by a great number of different names. In Italy it is called *Gracioli,* and *Gratiola di Roma;* in Holland, *Zomar Safraan, Apotheker Peer, Kanneelpeer, Sucher Kanijpeer, Kanjerweel, Kruidkanjerweel, Marsepeinpeer,* and *Schager Magd;* in some parts of Germany, *Malvasierbirne,* and *Strasburgerbirne;* in Wurtemberg and Anspach, it has the name of *Zuckerbirne;* in Thuringia, of *Zucheradenbirne;* and finally, in Vienna, it is known by the name of *Plutzerbirne,* from its resemblance in form to a wine-flask.

"It keeps a few days only, and in a week or ten days after being gathered it begins to rot at the core. Wood, long, flexuose or zigzag, smooth, with prominent buds, forming a drooping tree like the Jargonelle (Epargne.) Leaves, roundish, with a point, smooth, flat, slightly and regularly serrated; when young, very thin, and pale green on both sides, by which it is readily distinguished from the Jargonelle, (Epargne) in which they are at that time of a thick cottony texture.

"Flowers, the largest among pears. Fruit, produced upon the extremities of young branches, which must be borne in mind in pruning the tree; varying from three and a half to four and a half inches in length, and from two and a half to three inches in breadth across the widest part, exceedingly knobby and irregular in outline, particularly about the eye, quite blunt at the base: skin, when fully ripe, of a pale lemon colour, very slightly tinged with red on the sunny side, and covered all over pretty regularly with small green dots; eye, prominent, small; flesh, yellowish, breaking, firm, juicy, very sweet and excellent; core, very small, placed near the eye; seeds, all abortive."

In referring to Duhamel's description, I see nothing to add to the above, except that the stem is generally from twenty to twenty-four lines in length, and is frequently inserted somewhat laterally in the fruit: the skin is very smooth; the flesh is *melting,* but somewhat breaking, and *very* juicy.

So far as my own experience goes, and I have had bearing trees around me from boyhood, this is one of the least productive varieties cultivated among us, and without particular attention, the fruit is mostly knotty and of small size; and Fessenden remarks, that it is scarcely possible to raise it in the country around Boston, on account of its being subject to spots and cracks. I have noticed, however, that when the branches of large trees of this sort are sawed off, so as to force out new thrifty shoots, the crops are far more abundant as well as of larger size and excellent quality. A tree thus treated stands in the garden of Gardiner Greene, Esq. of Boston, to which the pomologists of that city can direct their attention.

It is mentioned in the Pomological Magazine, that it is doubtful whether the second variety mentioned in the German publications exists in England. I have possessed it in my collection for many years, where it has repeatedly produced fruit, and I will now proceed to describe it.

Musk Summer Bonchretien. *Pr. cat.*

This fruit is thirty-three lines in height, and twenty-seven in diameter, and generally approaches a pyramidal form: it often assumes a shape more or less irregular: sometimes it is swollen with protuberances and ridges, and at others it is only partially angular near the head. The stem is fifteen lines in length, and inserted within a cavity surrounded by ridges or projections. The skin is smooth and yellow, with a slight tint of red next the sun. The flesh is white, speckled, with greenish points, and is breaking, rather sweet, and highly, musky. The seeds are small and brown, and the fruit ripens at the end of August, or early in September. It is one of the best pears of that season, but is subject to split and crack before it attains to maturity. The tree does not succeed by ingrafting on the quince, and is delicate when ingrafted on the pear. Mr. Coxe, in his work on fruit trees, has transposed the titles of this and the preceding variety.

Mansuette. *Pr. cat. O. Duh.*

The form of this pear has but little regularity, approximating in a great degree to that of the Winter Bonchretien, (*Bon Chrétien d'hyver*) but with fewer projections and undulations. Its height is three inches five lines, and its diameter two inches seven lines, with a stem twelve or fourteen lines in length, which commonly rises obliquely, and has at its junction a swelling or protuberance, and some compressed furrows. The skin is green, speckled with brown, and sometimes entirely of the latter colour on the shade side; the part next the sun becomes a little yellowish, and even acquires a slight tint of red at the period at which the fruit attains to maturity. The flesh is white, half melting, quite juicy, accompanied by a little sharpness of flavour. The seeds are small, broad; and light brown. The fruit ripens about the beginning of September, and soon becomes soft. The tree can be grafted more advantageously on the quince than on the pear.

Martin Sire. *N. Duh.*

This is a very different fruit from the one described in Duhamel as the *Ronville* or *Martin Sire,* of which I shall next give a description. It is a very handsome pear, whose form would be almost ovate if it was not partially contracted towards the peduncle, and if the eye was not inserted within a pretty deep cavity, surrounded by very projecting swellings or protuberances. Its height is four inches less by three lines, and its greatest diameter taken at the medium of its height, is three inches and two lines; the stem, usually inserted rather laterally, is nearly two inches in length, and the skin is almost wholly of a yellowish green hue, attaining only a slight russet tint next the sun. The flesh is firm, rather dry, sweet, and quite agreeable, although not high flavoured. The seeds are light brown and well perfected, and the fruit ripens in November or December. In the New Duhamel it is announced that this fruit was presented to the author by M. Hervey, director of the gardens of the Luxembourg. I am not aware whether this or the succeeding variety is that which I have in my collection under the name of Martin Sire, but will soon be enabled, by critical examination, to decide the point. And as I have trees obtained from various sources under the same name, it is more than probable they may include both the varieties.

PEACH TREES.

The Edgefield S. C. Hive says it is informed by a respectable gentleman in Columbia, that the berries of the China tree, put to the roots of peach trees is a complete antidote to the troublesome little worm which infests them. It has also been said they destroy the cut worm when mixed with the garden soil.

(From the Northern Star.)

CULTURE OF SILK.

Warren, R. I. Dec. 18, 1830.

We have had the pleasure of attending an interesting course of Lectures in this town, during the past week, by J. H. Cobb, Esq. of *Dedham, Mass.* on subjects connected with this valuable produce.

The course consisted of four lectures, which were given in four successive evenings, as follows:

1st. On the history of silk and the importance of its culture in the United States.

2d. On silk worms, and the art of rearing them.

3rd. On the culture of the mulberry tree.

4th. On the art of reeling and manufacturing silk.

These lectures were accompanied by an exhibition of silk, in its various stages of preparation, raised in this country: the eggs of silk worm, were distributed gratuitously. There was also exhibited, the improved silk reel, by means of which, silk was extracted from the cocoons with great ease and despatch, and which was of excellent quality; the threads being even and uniform. The premium of the Massachusetts Agricultural Society, was awarded to the proprietor of this reel.

Mr. C. demonstrated with great clearness and accuracy, the profits which had been and might be derived from this business, and made it very apparent, that if the white mulberry should be cultivated on the sides of the streets and lanes in this town, the leaves of the trees, with a little care and attention on the part of the inhabitants, might in a few years, yield more profits, than would be sufficient to pay the whole town expenses.

We understand that a number of our enterprising citizens are about engaging in the above business.

RURAL ECONOMY.

(From Brown's Sketches.)

THE HORSE.

The horse was not found on the American continent by the early discoverers of that immense quarter of the earth. The countless numbers of wild horses, which are now to be seen in South America, all sprung from emancipated individuals, left there by the Spaniards. They have spread in all directions where food is plentiful: and if we may judge from the rapid increase, the climate and soil seem particularly adapted to the habits of the horse. This animal, however, has been formed with a constitution of great pliability, for he will thrive in all climates.

In the United States, the horses are principally of British origin. Considerable attention has of late, been bestowed upon rearing good horses, and with much success; although none have appeared to equal the horses of Great Britain. The majority of the best trotters now in the United States, are descended from the imported English race horse Messenger.

The Canadian horse is a hardy curiosity. The winter travelling in Canada, is sometimes very expeditious. It is surprising, with what speed a good Canadian horse will go, when drawing a cabriolet over the ice. Instances have occured of their travelling ninety miles, in one of these vehicles, in twelve hours; but when this occurs, the roads must be very smooth and hard. The shoes of their horses are never roughened, as in this country, by turning up the ends of them, but by inserting two or more steel screws, which can be removed or renewed with pleasure. The horses of Canada are very hardy animals, their best pace is a trot; they are accustomed to much bad usage and hard work, and are the most willing creatures in the world, for they never refuse the draught. They are brought from the country into Quebec, in the coldest weather, and left standing in the open air, without any covering, for hours together, whilst their owners are transacting their business or drinking, and they seem not to be any the worse for it. In the winter, the Canadian horse, like all other quadrupeds of that country, acquires an increased quantity of fur to protect him from the cold, and the currycomb is never used.

When the horses have been heated by fast driving, in a cold day, they appear to have a sort of icicle at every hair, and icicles two or three inches in length, are often suspended from their noses. Travelling on Lake Champlain is at all times dangerous, and it is very common for sledge, horses, and men, to fall through the ice, where the water is some hundred feet deep; and there is no warning of danger till the horses drop in, pulling the sledge after them; luckily the weak places are of no great extent; the traveller extricates himself from the sledge as soon as possible; and he finds the ice strong enough to support him, though it will not bear the weight of the horses. The pulling of them out is done in a manner perfectly unique: the horses are strangled to save their lives. When the horses fall through—for there are always two in these sledges—their struggles only tend to injure and sink them; but, as they have always round their neck a rope with a running noose, the moment the ice breaks, the driver and passengers get out, and catching hold of the rope, pull it with all their force, which in a very few minutes, strangles the horses; and no sooner does this happen, than they rise in the water, float on one side, and are drawn out on strong ice, where the noose of the rope being loosened, respiration returns, and in a short time, the horses are on their feet, and as much alive as ever. This operation has been known to be performed two or three times a day on the same horses. The Canadians tell you that horses which are often on the lake, get so accustomed to being hanged, that they think nothing at all of it. But though the case is very common, the attempt does not always succeed; for it sometimes happens, that both sledge and horses go to the bottom if they cannot be extricated in time. Another remarkable fact in regard to the Canadian horses is, their fondness for fish. The fish thus eaten, except in size, resemble a cod, and are from four to nine inches long; the English call them, "tommy cod." The manner of catching them is, by cutting holes in the ice, and putting down either nets or lines. Over this hole a temporary house is built, large enough to contain half a dozen people, and a stove to keep them warm. They who cannot afford deals to build a house, substitute large pieces of ice, with which they form a defence against the weather. Midnight is the best time for fishing, and a strong light is placed near the hole, which attracts the attention of the fish, and brings them round it in large quantities. There are a number of these houses on the river St. Charles, which make a strange appearance in a dark night, especially those made of ice.

Anecdotes of horses.—There are several parts of a horse that he cannot reach with his teeth to scratch when they itch: when these parts do itch, he usually goes to another horse, and bites him on the spot where he wishes to be scratched himself; the sagacious companion generally takes the hint, and performs the office for him. Dr. Darwin, who was an attentive and acute observer of nature, once observed a young foal to bite its dam, to indicate its wish to be scratched. But the mare, not choosing to lose a mouthful of grass, which she was in the act of chewing, merely rubbed the place on the foal's neck, with her nose: so that there can be little doubt but it was from reflection that she rubbed where she was bitten.

Forester had won many a hardly contested race; at length, over-weighted and over-matched, the rally had commenced. His adversary, who had been waiting behind, was quickly gaining upon him, he reared, and eventually got abreast; they continued so till within the distance. They were parallel; but the strength of Forester began to fail him. He made a last desperate plunge; seized his adversary by the jaw to hold him back; and it was with great difficulty he could be forced to quit his hold. Forester, however, lost the race.

Mr. Quinn's wicked horse.—In the year 1753, Mr. Quinn had a famous racer, who entered into the spirit of the course as much as his master One day, finding his opponent gradually passing him, he seized him by the legs, and both riders were obliged to dismount, in order to separate the infuriated animals, who were engaged with each other in the most deadly conflict: they were got apart with much difficulty. * * * *

The following anecdote is one of the many examples we have of animals sustaining life for a great length of time without food; and seems to be decisive as to the possibility of the fact, which many have doubted, and who have sought to account for their living long in such situations by finding other food where they were confined. A colt, the property of Mr. Edward Lemin, of Truro, in October 1793, fell into a shaft four fathoms deep, where it remained for one month before it was discovered; it was taken up alive and unhurt, though in a very emaciated state, and by proper treatment perfectly recovered. It was impossible that it could have received the least food or water while it was in the shaft.

MISCELLANEOUS.

(From the American Almanac for 1831.)

EVAPORATION.

The formation and never-failing supply of the condensible elastic vapor, which has been described to be one of the constituents of the atmosphere, is provided for by that law of nature, which has endued water, under all circumstances, even when congealed into ice, with the power of emitting vapor or steam, in a quantity proportioned to its temperature. The presence of water over the globe may be said to be universal; for even in the fraction which is estimated to be land, it is so profusely distributed as to maintain a perpetual exhalation. "Pasturage, corn-fields, or forests support a continual evaporation, augmented only by the dryness of the air, and the rapidity of its sudden contacts. Even ploughed land will supply as much moisture to the exhaling fluid as an equal sheet of water. It is only when the ground is quite parched, that it ultimately retains its latent store."* As this property of water clings to it in all its metamorphoses, and attends it in all its localities, it follows that the process of evaporation is constant and universal. It is generally also invisible, but there are times when it may be seen, and we can inspect, at the level of the earth, some of those operations which usually take place in the higher regions of the atmosphere. In the calm evening of a fine summer's day, the rudiments of future clouds often present themselves to our sight, in the first part of their flight; and though they disappear, it is no proof of the suspension, or even of the diminution, of the process, which proceeds as powerfully and effectually during the most brilliant aërial transparency as in the thickest mist.

By means of the visibility which cold imposes upon aqueous vapor, we can often satisfactorily trace its upward progress in the clouds of fine weather. "During the heat of the day it rises from the surface of the land and waters, and reaches its point of condensation in greater or less quantities at different altitudes. Partial clouds are formed in different parallel planes, which always maintain their relative distances. The denser forms of the lower strata, as they float along with the wind, show that the greater abundance of precipitation has been at the first point of deposition, while the feathery shapes and lighter texture of the upper attest a rarer atmosphere. These clouds do not increase beyond a certain point, and often remain stationary in quantity and figure for many hours; but, as the heat declines, they gradually melt away, till at length, when the sun has sunk below the horizon, the ether is unspotted and transparent. The stars shine through the night with undimmed lustre, and the sun rises in the morning in his brightest splendor. The clouds again begin to form, increase to a certain limit, and vanish with the evening shades. This gradation of changes, which we see so often repeated in our finest seasons, may at first seem contrary to the true principles; and the precipitations, which occur with an *increase* of temperature, and disappear with its *decline*, may, without reflection, be regarded as diametrically opposed to correct theory. But a little consideration will shew that such conclusions would be untrue. The vapor rises, and is condensed; but in its descent falls into a warmer air, where it again is evaporated, and becomes invisible; and as the quantity of evaporation from the surface of the earth is exactly equal to supply this process above, the cloud neither augments nor decreases. When the sun declines, the ground cools more rapidly than the air; evaporation decreases, but the dissolution of the cloud continues. The supply at length totally ceases, and the cloud subsides completely away. The morning sun revives the exhalations of the earth, the process of their condensation and consequent cloud-like form commences, and they again undergo the same series of changes."[*]

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* Leslie.

Descending again to the operations on the earth's surface, we may observe that the ascent of the aqueous vapor is modified by the relative differences of the temperatures of the exhaling fluid and the ambient air. Two of these it may be useful to describe. They are,

1. When the temperature of the fluid is *above* that of the air;

2. When the temperature of the fluid is *below* that of the air.

In the first case, the evaporation is proportionate to the difference of temperature. The gaseous fluid in contact with the surface of the warmer water becomes lighter by receiving portions of the excess of heat, and, rising up, carries with it in its ascent the entangled vapor, which has been cooled down by the low temperature of the air into the form of steam. This is the visible evaporation referred to above.

In the second case, though the water is colder than the air, it still, from the law before mentioned, emits vapor from its surface, but invisibly, as there is no condensing disposition now in the air. The vapor, therefore, neither having the power to displace the gaseous fluid, nor heat to cause a circulation of it, can only pass by filtering through its interstices—a most beautiful and astonishing instance of the extreme divisibility of matter.

The force of aqueous vapor disengaged at different temperatures has been determined with great accuracy, and the amount of evaporation has been demonstrated to be, other things being equal, always in proportion to this force.

It may be easily imagined, that as the interstices of the gaseous fluid can contain but a certain quantity of elastic vapor, there would naturally be a limit to evaporation. This is actually the case. It very often happens that the interstices are found to be full, and can hold no more, and that then evaporation ceases; sometimes, indeed, they may be said to run over, and it is then we see the excess in the shape of steam, or mist, or cloud. The capacity of these interstices of the gaseous fluid becomes larger or smaller in proportion to the temperature of their particles, and the effect of their contraction or expansion is precisely similar to the grasp or relaxation of the hand on a piece of imbibing sponge. At a low temperature, or when the grasp is tightest, a certain quantity can only enter. On the contrary, at a high temperature, or when the sponge is permitted to expand to the utmost, its capacity is increased, and a large volume may be contained.

The total quantity of aqueous elastic vapor which can enter between the interstices of the gaseous fluid, or which the latter can hold suspended, depends upon temperature, but this quantity is invariably at the same temperature. A volume of air may contain less than this quantity, but never more. When it has this exact quantity, it will remain transparent, and is said to be saturated, or at its *point of saturation.* It is then as damp as it can be; any attempt to insert more vapor will fail, and the rejected vapor will become visible in the form of steam. If we lower the temperature, the aërial interstices will contract, and some of the contained vapor will be squeezed out in the same form. We may increase the temperature to any extent without any visible change, but we render the air drier in proportion to the degree to which we ascend, and in the same degree capable of receiving and supporting an additional quantity of humidity. Atmospheric pressure also affects the amount of the quantity suspended, by opposing the diffusion and retarding the formation of the vapor. From the aqueous fluid being so abundantly spread over the face of the earth, there can be no doubt that the permanently elastic or gaseous atmosphere would very speedily be saturated with its vapor, did not some cause prevent its universal diffusion. This never-failing cause is inequality of temperature, which excites, or diminishes, or suspends, in the way we have described, the process of evaporation.

The absolute quantity of moisture that air is capable of containing, may be conceived from the following statement of Mr. Leslie:—"Air, at the freezing point, is capable of holding a portion of moisture equal to the 160th part of its own weight; at the temperature of 59°, the 80th part; at that of 86°, the 40th part; at 113°, the 20th part; and at that of 140°, the 10th part; so that the air has its dryness doubled at each rise of temperature, answering to 27° of Fahrenheit. While the temperature, therefore, advances uniformly in arithmetical progression, the dissolving power, which this communicates to the air, mounts with the accelerating rapidity of a geometrical series."

By the improved instruments and accurate observations of this gentleman and others, the total quantity of moisture which could be suspended at one time in the air can be correctly estimated. It has been stated by him, that, at 68° Fahrenheit, a cubic mass of air, measuring 40 inches every way, can retain 252 grains of water. But if a larger scale be preferred, the same numbers will express in pounds troy the quantity of water required to saturate a perfectly dry mass of air constituting a cube of twenty yards in dimension. If the greatest amount possible of the aqueous element were to be suspended in the atmosphere, and this were to pass from a state of absolute dampness into that of extreme dryness, and discharge the whole of its watery store, it would form a sheet of somewhat less than five inches in depth. To furnish the usual supply of rain, the air must, therefore, undergo very frequent changes, equal to that of from dryness to humidity in the course of the year.

The average amount of evaporation in the neighbourhood of London per annum, calculated by Mr. Daniell's hygrometer, a most elegant and perfect instrument for ascertaining the humidity of the atmosphere, is 23,974 inches. The average weight of the quantity of water raised by this process, from a circular surface of six inches diameter, 0.31 gr. per minute. The results of actual measurement by Mr. Howard accord most satisfactorily with this method of estimating the amount of evaporation, and prove most incontestably the accuracy of the calculations upon which it is founded.

The rate at which this process proceeds near London, during the several months of the year, is estimated by Mr. Daniell, and recorded in the *British Almanac*, as follows:

	in.		in.
January	0.413	July	3.293
February	0.733	August	3.327
March	1.488	September	2.620
April	2.290	October	1.188
May	8.286	November	0.770
June	3.760	December	0.516

The smallest quantity of water is, therefore, lifted into the atmosphere during the month of January, and the greatest in June. The mean quantity held in solution in a cubic foot of air, is 3.789 gr.

The rate of exhalation from the surface of the ground is scarcely of less consequence than the fall of rain, and a knowledge of it might often direct the most important operations. Mr. Leslie invented an instrument for measuring the quantity of moisture exhaled from a humid surface in a given time. This he called the Atmometer, and he has estimated that the daily exhalation from a sheltered surface of water would, at the mean dryness of winter, lower it 0.018 inches, and at the mean of summer 0.048 inches. And he gives the following instance of its use: Suppose a pool for the supply of a navigable canal exposed a surface equal to ten English acres, and that the atmometer sunk 80 parts during the lapse of 24 hours, the quantity exhaled in that time would be 2904 cubic feet, or about 81 tons, equal to 1700 imp. gall. per acre.

The dissipation of moisture is much accelerated by the agency of sweeping winds, the effect being sometimes augmented 5 or even 10 times. In general, this augmentation is proportional to the swiftness of the wind, the action of still air itself being reckoned equal to that produced by a celerity of eight miles each hour.

CURIOUS FACT IN NATURAL HISTORY.

Wild Goose, (*Anas Canadensis.*) The Canada Wild Goose (says Wilson) is now domesticated in numerous quarters of the country, and it is remarkable for being extremely watchful, and more sensible of approaching changes in the atmosphere than the common gray goose, with which they readily pair, the female always seeking out the most solitary place for her nest not far from the water. On the approach of every spring, however, these birds discover symptoms of great uneasiness, frequently looking up into the air, and attempting to go off. Some whose wings have been cut, have travelled on foot in a northern direction several miles from home. They hail every flock that passes overhead, and the salute is sure to be returned by the voyagers, who are only prevented from alighting by the presence and habitations of man. The strong disposition of wounded wild geese to migrate to the north in spring, when their wounds have healed, induces them sometimes to mount into the higher regions of the air and join the passing parties to the north, and extraordinary as it may appear to *return again the succeeding spring.*

In corroboration of the above, the following circumstance was related to me, by an old gentleman, belonging to the family of Shakers at Alfred. He observed, that a neighbor of his, a few years since, having upon his farm a female wild goose, which he had kept some time, seeing in the spring a flock taking their accustomed flight to the north, and, actuated by that strong instinct of migratory birds, immediately joined his old associates and disappeared. The fall following, as the geese were returning to their winter quarters, he was surprised to find one morning, that the identical goose which left him in the spring had returned with *three others* which he presumed were her young.—*Salem Observer.*

Idleness travels very leisurely, and poverty soon overtakes her.

A quack robs with one hand and kills with the other.

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[*] Daniell.

VEGETABLE EXTRACT.

In the north of France an excellent extract of the herbs used in soups and broths is made by boiling them very slowly with a sufficient quantity of salt, and afterwards evaporating the fluid. A little of this extract, dissolved with gom arabic in hot water, is said to make capital soup.

During the height of his late Majesty's severe illness, a female of respectable connexions in this town actually forwarded a genuine box of "Meat's Pills." to the Duke of Wellington for the use of the King, accompanied with an epistle setting forth the virtues of this medicine, which had been found to effect cures of all manner of diseases.—Singular as it may seem, his Grace, in the midst of his multifarious occupations *found* time to reply to the extravagant enthusiast, in a letter in his own hand-writing, informing her that, not being his Majesty's medical adviser, he could not undertake to recommend her medicine.—*Devonport Telegraph.*

THE FARMER.

Baltimore, Friday, Dec. 31, 1830.

Our much respected friend, Dr. Mease, will please accept our thanks for the following interesting communication. As he, without doubt, has in his possession many valuable papers of a similar character, which would be useful either to the historian or the agriculturist, he is most respectfully solicited to give them publicity through the medium of our columns. The volumes of the Farmer will undoubtedly be resorted to by the future historian for the origin of many items of agricultural produce, and as such gentlemen as the Doctor have the means, we think they owe it to their country to place the materials upon record. There is probably no weekly periodical in existence, if we except Niles' Register, so universally preserved for future reference as the American Farmer; and therefore, that it will be resorted to for the purpose supposed is not presuming too much—indeed it has been already by some of the first authors of our country, and this of itself will induce others to follow the example. We hope therefore that gentlemen who possess the information will enable us to place in our columns every thing relating to the agricultural history of the country.

Origin of the Sea-Island Cotton.

Mr. Smith: *Philadelphia, Dec. 8, 1830.*

Sir,—The original of the annexed letter has been many years in my possession, and was given to me by the gentleman to whom it was addressed. I would have published it long since, had I not intended it to form a portion of an essay on the natural history, and agricultural management of the Genus *Gossypium*, the first part of which I read some years ago to "the Philadelphia Society, for promoting agriculture." I concluded not to commence the second part, from a conviction that the planters to the south were much more competent to the task than myself, and that if I did undertake it, I should be obliged to apply to them for my facts to finish it. As it is uncertain whether I shall resume the subject, and deeming the letter interesting, inasmuch as it settles the question as to the source of the sea-island cotton seed, I have thought proper to send it to you for publication. For want of knowing the native country of the sea-island cotton, the late Cæsar A. Rodney, upon his return from the mission to South America, by Mr. Monroe, actually sent one or two barrels of the seed to a friend there to improve the staple of the article.

I am respectfully, James Mease.

John Couper, Esq. *Havannah, February 2, 1805.*
St. Simons, Georgia.

My Dear Sir,—Being informed by my friend James Hamilton, of London, that you are the same John Couper with whom I had the pleasure of being acquainted many years ago in St. Augustine, and for whom I have felt an interest which the lapse of time has not done away, I beg leave now that I have drawn a little nearer to you, to revive our former friendship.

It is pleasing to view the rising prosperity of the land you live in, and particularly so to me, when I reflect that one of the present sources of her riches was in a very great measure derived from myself. In the year 1785, disgusted with the Bahama islands, I settled in Kingston, Jamaica, where finding my friend Frank Levett with his family and all his negroes in a distressed situation, he applied to me for advice as to what steps he should take, having no employment for his slaves. I advised him to go to Georgia, and settle in some of the out-islands and plant provisions until something better turned up. Being well acquainted with Sapelo, I recommended that Island. He could not, he said, bear to live in that country, but as many of his friends were settled in the Bahamas, he would attempt the planting cotton among them. Being just from thence, I warned him against the attempt, but still he went, and planted cotton. At length, in a doleful letter, he acknowledged himself a convert to my opinion, having found things exactly as I had stated them, and resolved to go to the place I recommended, and there maintain his negroes, until he could look about him. Early in the year 1786, I sent him a large quantity of various seeds of Jamaica, and as Mr. Moss, and Col. Brown requested me to get some of the Pernambuco cotton seed, I also sent to Mr. Levett three large sacks, *of which he made no use but by accident.* In a letter to me in the year 1789, he said, "being in want of the sacks for gathering in my provisions, I shook their contents on the dung-hill, and it happening to be a very wet season, in the spring, a multitude of plants covered the place; these I drew out, and transplanted into two acres of ground, and was highly gratified to find an abundant crop." This encouraged me to plant more, I used all my strength in clearing and planting, and have succeeded beyond my most sanguine expectations. This year I have every prospect of gathering twenty tons of clean cotton. * * *

I am, &c. Patrick Walsh.

The Horse.—There are many comforts and conveniences, to say nothing of indispensables, so cheaply attainable, and so freely accessible to all, that they are used and abused without a thought being bestowed upon their value. Who, when he takes a draught of water *wastes* a thought upon its inestimable value, or upon the deep misery to which he would be reduced if deprived of it? Because he goes to the fountain and draws it freely, "without money and without price," he looks upon it with an eye of unconcern, and uses it as a convenience which he may command or dispense with at pleasure. Ninety-nine out of every hundred, indeed, bestow no thought upon it at all; and yet what would be the condition of man if he were deprived of it but for twenty days? A thousand things necessary to the comforts and conveniences, and many to the existence of human life, are used and treated in the same careless manner. But one of these, and that not the least, we have taken as the subject of these desultory remarks. It is the horse; and we regret that we cannot confine our remarks to the comparative innocence of mere thoughtlessness on the part of mankind in their treatment of this most useful slave, most noble animal. An observer can hardly pass through the streets without observing not only highly culpable neglect, but positive and cruel abuse of the horse. Go where you will, you will either see him overloaded, cruelly whipped, half starved, or abused and neglected in some way or other—without seeing him toiling and sweating in the service of his heartless master, without the ministration of a jot or tittle to his own comfort. Who has not seen, with pain and heart-yearning, in times of ice and sleet, this noble animal, straining and tugging, and slipping and falling upon his bruised knees, before a heavy load and under the cruel application of the merciless lash, all which suffering might have been saved to the poor animal by timely attention with a trifling expense in shoeing? A case of this kind occurred in the presence of the writer during the late cold weather. The horse, before a heavy load, either smooth shod or without any shoes at all, was endeavouring to ascend a slight hill in one of our streets. And nobly did he labour and villanously did his master apply the lash; but in vain—he continued slipping and falling upon his knees, and his master kept applying the lash, both equally increasing their labours, till nature could sustain itself no longer—the horse put all his energies into action in a sudden effort, fell and broke his neck. His dying groans seemed to our minds to reproach the inhuman wretch, his master, with his brutality, and at the same time to rejoice at even such a termination of his misery. But his reproaches reached not the understanding of the surviving brute—the only remark we heard him make was, *"there goes forty dollars,"* and in our conscience we could have wished that it was the last forty dollars he would ever be able to boast the possession of.

When we take into view the actual uses of the horse in the labours and conveniences of human life, we shall be astonished at their magnitude. Let us suppose for a moment, no longer,—for we would not impose the wretchedness upon humanity for a longer period,—that the horse is struck from existence by some deplorable calamity, what would then be our situation? We have so long been dependent upon him for the performance of so many of the actually necessary labours which contribute to the support of human life, that his loss would be almost insupportable. We could neither supply his place with other animals, nor machinery, nor human labour. What power should we be able to call upon to transport our mails, our merchandise; to plough our fields, to gather in the harvest, to carry our produce to market, our grain to the mill? On whom could the luxurious citizen and the hardy mechanic call, to bear to their kitchens their provisions, their fuel; their most common necessaries?

The horse is powerful, yet he submits to the slavery imposed upon him; is patient of his toil, and only requires such care and provision as will sustain nature. He willingly labours for man, even from the rising to the setting sun, and even exerts the utmost stretch of his power to serve him for no other reward than provender sufficient to satisfy nature, and such care as the inclemency of the seasons renders necessary. Then is not the neglect, the abuse, with which he is generally treated a reproach and a disgrace to human nature? The writer of these remarks has seen so much of the ill treatment of this most useful animal, that he often feels a gratification in seeing one refractory and refuse to perform the labour imposed upon him.

There is another species of ill treatment we have witnessed still more reprehensible and disgraceful to human nature—we allude to the case of old horses, which, after wearing out the vigor of their lives in the service of their monstrous masters, are turned out to gnaw the scanty herbage from the roadsides, and the commons, with the skin worn from their bony backs and shoulders, and their joints and ribs penetrating their hides, tottering and falling in their weakness, to die in the first ravine that may offer them an asylum from the neglect and abuse of humanity. "Poor old horse, let him die," is the highest strain of charitable feeling such acts seem to excite in human nature. But is such treatment all this noble creature deserves at our hands? Has he *earned* no more than this, do we owe him no more? That he is what is called a brute, is true; and that he possesses only the rights and feelings of a brute, is also true; but what does this argue? Either that he possesses neither-rights nor feelings, or that because he cannot approach the tribunals and demand justice at the hands of the law, we may with impunity deprive him of the one and torture the other with the most inhuman laceration. The first we have no right to assume, and the other is a disgrace to our nature. Would it be going too far to assert, that the man who illtreats his horse in any manner, would, in the absence of legal restraint, bestow the same treatment upon any of his fellow creatures that might be so unfortunate as to be placed in his power?

Lawrence on the Horse.—The Editor of the American Farmer acknowledges the receipt of a copy of this excellent little book from the publishers, Messrs. Carey and Hart of Philadelphia. The following notices of the work will show the estimation in which it is held by several of the most respectable British writers.

"Independently of the practical value of the book, and it is really and extensively valuable, it is one of the most amusing the reader will meet with in a thousand, complete and unique, embracing every posaible subject that can be connected with the Horse."—*Monthly Magazine.*

"On the whole we have derived much amusement as well as instruction from the perusal of this little work; and recommend it to the attention of all horsemasters as illustrative of a very important, though little heeded position, that good management and complete subjection are not inconsistent with the great principles of mildness and humanity."—*The Farmer's Journal.*

"As well as a practical book on the subject, it has also a constant bearing on that of morality, and, in some degree, of amusement; as reading is now become universal among the labouring classes, we should recommend this small and practical work to be put into the hands of grooms, and of those servants who are intrusted with the care of horses."—*Sporting Magazine.*

Parmentier's Garden.

[The New York Commercial Advertiser takes the occasion of republishing the interesting letter of Miss Adele Parmentier to the editor of the American Farmer, informing him of the death of her father, to make the subjoined remarks on the Horticultural establishment and the family of the deceased Mr. Parmentier:—]

It is one of our sins of omission, that we have not earlier informed the public of the determination of Mrs. Parmentier to continue the establishment which had been built up with so much labor and care by her late husband. It was the desire of the latter that his wife should do so; and we are assured that she is in all respects adequate to the undertaking. Perhaps, however, our delay is the reader's gain, since it affords us the opportunity of communicating the fact through the more attractive medium of the preceding letter, written with touching simplicity, by one of the most intelligent and interesting young misses whom we ever saw.

The case of Mr. Parmentier's family is one of peculiar interest, and presents strong claims for the public encouragement. He was a Belgian of an opulent family, was himself wealthy, and dispensed elegant hospitalities to his friends and strangers from abroad. This fact is known to some of our own citizens, to whom his polite attentions were extended in years that have gone by. Mrs. P. was a lady of distinguished family, and possesses all the advantages of a polished education.

Some ten or twelve years ago, Mr. P. engaged in extensive speculations which proved unsuccessful, and ended in the ruin of his fortune. But unwilling to be dependent upon his relatives, he resolved to come to America, and sustain his family by his own industry. In this resolution he was nobly sustained by his wife, who at once accommodated herself to her change of circumstances; and about seven years since, the garden bearing the name of the deceased, was commenced. The location was apparently a singular one; for it was upon a hard soil, rough and covered with rocks. But industry and perseverance, united to a cultivated taste in the departments of horticulture, floriculture, and landscape gardening, have transformed the grounds into a little paradise, where we hope Mrs. P. will be enabled by a generous and sympathising public, to reap an ample reward for the exertions she has already made, and which must be continued, against the frowns of capricious fortune.

Prices Current in Boston, Dec. 25.

Apples, new, bbl. 1.38 a 1.50. *Beans*, white, bushel, .90 a 1.05. *Beef*, mess, bbl. 6.50 a 8 .70; cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 5.50 a 5.75; Genesee, 5.62 a 5.87; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .63 a 65; Rye, .70 a .75; Barley .62 a .69; Oats 36 a 38. *Hogs-Lard*, 1st sort new, lb. 10.00 a 11.00 *Pork*, clear, bbl. 16 a 17; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Seeds*, Herd's Grass, bu. 1.75 a 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb..33 a. 38; White Honeysuckle Clover, 25 a .38; Red do. Northern, 10 a 11; French Sugar Beet —— Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .62 a 65; do. do unwashed, .35 a .42. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .56 *a* .58, do. half blood, .50 *a* .53; do. quarter, 40 *a* 42. Native, washed .36 a .38; Pulled, Lambs', 1st sort, 52. a 55; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 48 *a* 50.

Prices Current in New York, Dec. 25.

Beeswax, yellow .19 a 21. *Cotton*, New Orleans .11¼ a .12½; Upland, .9¼ a .11; Alabama, .10½ a 12. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax 12 a 16; *Flax*, American, 7 a 8.—*Flaxseed*, 7 bush. clean 10.75 a 11.00,—— *Flour*, N. York, bbl. —— a 5.12½; Canal .5.37½ a 5.50; Balt. Hwd. st. 5.37½ a 5.50; Rh'd. city mills 5.62½ a 5.75; country, 5.12½ a 5.25; Alexand'a, 5.12½ a 5.25; Fredericksburg 5.00; Petersburg, 5.12½ a ——; Rye Flour, 3.50 a 3.62½; Indian Meal, per bbl. 3.25 a ——; per hhd. 14.50 a 14.75. *Grain*, Wheat, North, 1.06 a 1.08; Vir. .98 a 1.04; Rye, North, 70 a —; Corn, Yel. Nor. .54 a 63; Barley, 76 a 78; Oats, South and North, .27 a .36; Peas, white, dry, 7 bu. –. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.50 a 8.75; prime 5.25 a 5.50; cargo 4.25 a —— Butter, N. York, 12½ a 16; shipping, 6 a 11; Lard, 8. a .9; Pork, mess bbl. 13.50 a 14.00; prime 9.00 a 10.12½; cargo ——.

THE HIGH BRED IMPORTED IMPROVED DURHAM SHORT-HORNED BULL BOLIVAR

Will be at Franklin, on the Franklin Turnpike road, about four miles from Baltimore—during the months of January, February, March and April next.

At Epsom farm, near Towsontown, seven and a half miles from Baltimore, on the York Turnpike road, during the months of May, June, July, and August next; and at Franklin, in September, October, November and December.

Terms.—Five dollars, to be sent with each cow.

This Bull was selected by Mr. Coates, the keeper of the Herd Book, without limitation of cost, and was highly valued by Colonel Powel, who considered him in form, points, and pedigree, equal to any animal to be had in Great Britain.

Bolivar is red and white, was bred by J. Whitaker, Esq. England. The singular neatness of his shoulders, the straightness of his back, the width of his loin, the smallness of his head, neck, and offal, the quickness of his gait, together with the well known character of his family as dairy stock, render him one of the most desirable males for improving our neat cattle that can in any country be found.

The committee on Neat Cattle at the exhibition of the Pennsylvania Agricultural Society, reported as their opinion, that Bolivar was "*the handsomest and best Bull that has ever been exhibited at any of our shows.*"

Bolivar is at the Epsom Farm at present.

SUN-FLOWER SEED.

Just received from Mr. C. A. Barnitz, of Pa. a few bushels Sun-Flower Seed for sale.

Also for sale, a few copies Lawrence on the Horse.

GIDEON B. SMITH,
Office American Farmer.

BALTIMORE PRICES CURRENT.

Baltimore Market.—The late intelligence from Europe of an expected war between France and Russia,—and consequently a general war in Europe,—has completely unsettled our market. We were yesterday unable to find a single merchant willing to name a price for flour or grain. Our readers can judge for themselves of the probability of a war, we as yet do not believe in it. We do not alter our prices, but they must be considered nominal—they are certainly not too low, and if any change takes place it must be for the better.

Tobacco.--Seconds, as in quality, 3.00 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00—. a 4.00—Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 387 hhds. Maryland; 69 hhds. Kentucky; 25 hhds. Virginia; and 2 hhds. Ohio—total 483 hhds.

Flour—best white wheat family, $5.25 *a* 5.75—super. Howard-street 5.00 *a* 5.06¼; city mills, 4.75—Susquehanna, 4.87½ *a* 5.00; Corn Meal, bbl. 2.25 Grain; red wheat, 95 *a* 98; white do. 1.00 *a* 1.05—— Corn, old white, 55 *a* —old yellow 56 *a* —new white — *a* .52---yellow — *a* 54-Rye, .57 *a* .59-Oats, .30 *a* 31, Beans, 90 *a* 1.00---Peas, 50 *a* 60---Clover seed 5½ *a* 5¾. Timothy, 2.00 *a* 2¼.——Orchard Grass, 1.25 *a* 1.50—— Herd's, — *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½ Flaxseed — *a* 1.20--Cotton Va. 10 *a* 10½--Lou. 11½ *a* 13½—Alab. .9½ *a* .11—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½—Upland 11 *a* 11¾--Whiskey, hhds 1st p — *a* 28; in bbls 29 *a* 29½—Wool, common, unwashed, lb. 15 *a* .16—— washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* --; Country, dew-rotted, 5. *a* .6c.- lb. water-rotted, .6 *a* 8c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.00, *a* ——--No. 2, 5.50 *a* ——--No. 3, —— *a* 3.50; Bacon hams Balt. cured 10c.-Feathers, 34 *a* 35--Plaster Paris, cargo price per ton, 4.25 *a* — —ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00.—Prime Beef on the hoof, 4.50 *a* 5.00--Pork on the hoof 4.50 *a* 4.75——Pine Wood, by the vessel load, 2.00. Oak, 3.25 *a* 3.50—Hickory, $4.50 *a* 5.00.

EDITED BY GIDEON B. SMITH.

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AGRICULTURE.

(From the British Farmer's Magazine, for Nov. 1830.)

ON SHEEP HUSBANDRY.

Sir,—As a revolution, as yet, incomplete, has been in progress, in our flocks for more than forty years, the following account and remarks may not, perhaps, be uninteresting to a portion of your readers.

It is asserted by many, who have written on the subject, that wool was one of the earliest articles of export commerce from this country; yet, in the earliest accounts we have of any part of England, neither sheep nor wool are mentioned; nor is there any notice taken of either in the catalogue of articles purchased by the Phœnicians, of the Britons, on the coast of Cornwall, though the Romans are represented to have found the inhabitants of the interior, either in a state of nudity, or partly clad with skins; whilst those residing near our southern and western sea-coasts, and who were by far more civilized than those of the interior, wore a sort of covering, in imitation of the Gauls, denominated *"bracchæ."* According, however, to Mr. Hale, there was nothing known concerning sheep, in Britain, till between the years 712, and 727, in the latter of which king Ina instituted a law to encourage their breeding and propagation; though it was not till 160 years after this, or the year 887, that king Alfred began to establish the first woollen manufactory, which Edward, his son and successor, was, it is said, so anxious to see prosper, as to have caused his queen and daughters to be taught the arts of spinning and carding. Whence, probably, was derived the following lines:—

> "To spin, with art, in ancient times was seen
> Thought not beneath the noble dame or queen,
> From that employ our maidens took the name
> Of spinsters, which the moderns never claim;
> But, since to cards each damsel turns her mind,
> And to that dear delight is much inclined,
> Change the soft name of spinster to a harder,
> And let each lady, now, be called a *carder!!*"

But, notwithstanding Edward's ardour, in his endeavours to promote the manufacture of woollen, its progress is said to have been greatly retarded by the country being numerously infested with wolves, great numbers of sheep being destroyed by them. The wolves are represented to have been so numerous, in the time of King Athalston, Edward's son and successor, as to have induced that monarch to order a retreat to be built, near Flixton, in Yorkshire, for the reception and safety of those passengers who were pursued by them; whence it was a long time before many sheep could be securely husbanded; nevertheless, it is somewhat strange that none of our zoographers have furnished us with the origin of sheep in this country. The skins, found upon the natives, must have been taken from some animal; they could not have been brought here by the Phœnicians, or any other foreign nation, because, those who inhabited the interior of the country and wore them, held no communion with those living on the coasts. Besides, the Romans were well enough acquainted with sheep husbandry, long before they visited this country. Their oldest rustic writer, *Cato,* who died 149 years before the Christian era, writes, "allure sheep to where you propose to sow corn;" and Varro, who died twenty-eight years before that epoch, signifies that the Roman shepherds carried with them toils and other requisites, with which they made folds in the forests.

Some authors have attempted to make the *musimon*—which appears, from the best accounts given of it, to have been, originally, a native of Spain, and the offspring of a *ram and a goat;* but this, I conceive, appears to be highly improbable. What I have seen of the breeds of the sheep, I am of opinion that England, if Providence bestowed upon her none of her own, is indebted to the Netherlands for most of her white-faced polled sheep; to Normandy for black-faced polled ones, and to the west of France and coast of Barbary, for her small black-faced ones; whilst some suppose that her large horned Wiltshire, and Somersetshire crocks are, merely from their horns resembling those pictured upon the battering rams, used in the wars of yore, and the former having Roman, or aquiline noses, are of transalpine origin. If so, they are much hardier sheep than the generality of those which originate so far to the southward. The Dorsets were, possibly, the offspring of a cross between the Somersetshire ewe, and the Ryland ram.

It would seem by the following extract, from a book entitled "Systema Agriculturæ," published in 1675, that, at that date, England possessed no very large breed of sheep. "The Herefordshire sheep," says the author, "about Leicester, bear the fairest fleeces of any in England. Some are very small (the Ryland breed) others larger, (probably from a cross between the Ryland ram and old Leicestershire ewe) but the Dutch sheep (most likely the old Lincoln, at that time but little known here) are the largest of all, they being much larger than any I have seen in England."

That the numbers, as well as variety of the breeds of our sheep had increased, with our population and commerce, there can be no doubt; but I believe there was little progress made in improvement, either in fleece or carcass, till within these last forty years. However, between the years 1760, and 1800, there appears to have been a great increase in the size of the sheep husbanded in most parts of Britain, with the exception of that of the pure Ryland, and the half-woolled half-haired Welch and Scotch mountaineers. In the week immediately preceding the Christmas day of 1788, I saw hanging in the shop of a Mr. Glover, a then respectable butcher, in King-street, St. James's, London, three Wiltshire crock wethers, the bare carcasses of which averaged 33 stones and 1 lb. each, 8 lbs. to the stone. They were for Christmas consumption, but not nearly so highly fattened as the sheep exhibited at our cattle shows. The weight of the wethers, when but moderately fattened, used to be from 14 to 18 stones of 8 lbs. each. They were much husbanded in Wiltshire,—after which county they were named, and North Devonshire, as also to some extent in parts of Berkshire, Buckinghamshire, and Somersetshire; but their principal mart, when fat, was, up to about the year 1810, Smithfield, from which they have, for some ten or a dozen years, nearly disappeared. The nearest in weight to the Wiltshire, or, as some called them, elephant crocks, were those of the old Lincolnshire breeds, the wethers of which, when moderately fattened, weighed from 12 to 16, and when fattened for prize show, 25 to 30 stone of 8 lbs. each; next in weight to these were the wethers of the old Leicestershire breeds, which, when moderately fat, weighed from 11 to 14, when fattened for prize show 18 to 26 stones of 8lbs each; next in weight to the old Leicester breeds, but higher than them on their legs, were the black-faced Berkshire breeds, the wethers of which, when moderately fat, weighed from 10 to 13 stone; when fattened for prize show, 16 to 22 stones of 8lbs each; and next, and last, that most excellent and lively countenanced horned Norfolk breed, the wethers of which, moderately fattened, weighed from 8st. 4lbs. to about 11st. 4lbs., and when fattened for prize show, from 14 to 17 stones of 8lbs. each. But few of these four last-mentioned breeds have made their appearance in Smithfield during the last fifteen years, though they, the Wiltshire crocks, the Somerset, and Dorsetshire breeds, the two latter of which, appear to be nearly out of date, were wont, till about the year 1810, to form the greater part of Smithfield's spring-of-the-year supply. None of them are, however, quite extinct. The heaviest fleeces of the old Somersetshire breeds, of six teeth, and four years old wethers were wont to average about 2¼; of their four teeth wethers 3¼; and of their store tegs and fattening ewes, 5½ to the tod of 28lbs.

The sheep already mentioned, a few crosses between the pure South Downs and the Berkshire, the Herefordshire Ryland, and Leicestershire breeds; the North Border sheep, of which more will be herein said; and *little* Welch breeds; formed the chief flocks, up to the fifth year of the present century, although, as will be seen by the following statement, an improvement in the staple of British wool had been, at that time for thirteen years under powerful contemplation.

A society "for the improvement of British Wool," of which Sir John Sinclair, Bart., was the chairman, and Sir Alexander Ramsay, deputy chairman, and of which, his late majesty, George the Third, was solicited, and, I believe, prevailed upon to become patron, was established on the 31st of January, 1791, to be held quarterly, at Edinburgh, and under the direction of the Duke of Argyle, the Earls of Dumfries and Hupeton, the late Lord Sheffield, the Lord Chief Baron Montgomery, the Lord Provost of Edinburgh, Sir Joseph Banks, and many other influential noblemen and gentlemen. Sir John Sinclair, in the course of an appropriate address, which he delivered at the society's first meeting, asserted that "a very intelligent, and highly respectable gentleman has sent me an account of this system, (he previously speaking of the different systems of combing and carding of wools) in the western parts of England. It is only within these forty years that the inclosing of commons began to prevail there, and before that took place, every farmer in the dry lands, thought it his interest to attend to the fineness of the wool, whence his chief profit arose, and not the size of the animal—the carcass being of so little value that his fat sheep, even in the month of March, did not fetch above 3*d.* per lb. instead of 4½*d.* its price at present; soon after this period, the turnip and clover husbandry began to flourish, and the best farmers, encouraged by the better price of meat, began to think that their land might be turned to a more productive use, by introducing larger sized, and more bony animals, the sheep of 8lbs. per quarter, producing 1lb. of wool worth 1*s.* 8*d.*, were, by procuring Dorsetshire rams, changed to 14lbs. per quarter, and gave 3lbs. of wool, worth 2*s.* 3*d.* The difference in value of the two animals amounted to 9*s.* Such large sized animals could not live upon the short grass which uncultivated commons produced. It became an object, therefore, to inclose and improve the commons, by which system of husbandry the produce of the lands has been so exceedingly increased, that what was formerly common, or sheep-walk, sixty-nine years ago, is now let at 15*s.* per acre; and the ancient inclosures, of 7*s.* per acre value, at 20*s.* per acre." This extract testifies that, in the year 1751, the largest of our breeds of sheep were comparatively small, or that, if there were in this country at that time, any large breeds, they were not generally known.

The first of the old Lincolnshire and Leicestershire breeds are supposed to have reached England about the year 1760; six or seven years after which, a Mr. Turner is said to have introduced into Herefordshire, a cross between the Leicestershire ewe and small Ryland ram,—whence the origin of the Cotswold, or large Herefordshire breeds, previously to which, the Rylands appear to have been almost exclusively husbanded. longitudinally, through England, between the Thames and the Tyne; but, notwithstanding the great and influential men by whom the Edinburgh Society was directed, full ten years elapsed before any material progress was made in the improvement of the fleece of any of our breeds of sheep. I believe Mr. John Ellman, senior, of Glynde, Sussex, to merit justly the praiseworthy distinction of being designated the *father of the improved British fleece,* and to have commenced his labours of improvement, which I believe he accomplished, without the aid of any other breed whatever, but merely by judiciously selecting ewes and rams from the best pure South Down breeds, then extant, —in the year 1798, in which the late Duke of Bedford founded the cattle show of the Smithfield club—the honour of gaining prizes in which has, incontrovertibly, been the grand stimulus to improvement *in every branch of rural economy.*

Mr. Ellman was closely pursued, in his own system, by the late Duke of Norfolk, the Earls of Egremont, Ashburnham and Chichester, the late Lords Sheffield and Gage, Lord H. Cavendish; Messrs. Thomas Saxby, of Southouse; Mr. William Harrison, of Folkington, Mr. Edward Anger, of East Bourn; Mr John Rutland of Willington, &c., &c., all of, or near to, the South Downs of Sussex; so that the improvement of the South Downs sheep and their fleece, may be rightly considered the legitimate offspring of themselves.

The celebrity of the improved South Down breeds —that of Mr. Ellman, which had a few years the start of most of the others, taking the lead, soon attracted the notice of the late Duke of Bedford, Mr. Coke of Norfolk, and, in brief, that of all the principal sheep-breeders in the United Kingdom, as well as many on the continent of Europe, both it and the breeds themselves speedily spreading far and wide. But, notwithstanding the excellence of these breeds of sheep, and the high reputation they had so speedily won, they were, in some degree, supplanted by the Merinos, to the great detriment of the British sheep-husband, whether breeder or grazier, who speculated in importing them!

On the 4th of March, 1810, at which time the Merino breeds were getting rapidly out of favour, an association, denominated the Merino Society, was established (though, it was supposed, the machinations of some who had been deeply speculating in Merinos, with a view of keeping up the rage, till they had, as it is termed by sheep-jobbers, "sold out," at less ruinous prices than some of their brother dealers had submitted to,) with branches in Edinburgh and Dublin; and a committee in every shire and county in the three kingdoms. In its third report, published in 1813, which may, I conceive, be considered to contain its dying groans, its secretary says, "In no instance have the Merino sheep disappointed the hopes of the skilful breeder. One of Mr. Causton's sheep—a pure Merino—weighed 12 stones of mutton." In another part, "the late show of the society, in Goswell-street, manifests that the sheep will produce mutton, as well as wool, of excellent quality; and it is a curious fact, that that mutton, which has been deemed carrion, is now becoming the favourite food of the epicure;" in another, "Mr. Coke, who stirred up a competition between the Merinoes and South Downs, was naturally supposed to have exhibited the flower of his flock. They were like modern Down sheep—that is to say, half Berkshire, large, and well laden with fat." In another place, "I need not say, Mr. Coke of Norfolk has declared himself unfavourable to the Spanish breed. I understand his objection is entirely to the carcass." In another, "even the common farmers, *those lumps of prejudice and antipathy*, seem hankering after the Merino sheep. They cannot stand against doubling quantity and the price of wool in a single cross!" In another, "the recent sale of his majesty's flocks at Kew, (I believe in 1812,) has long been anticipated as an event which would fix the minimum of this breed. Considering the dreadful state of poverty and neglect under which his majesty's sheep laboured, when offered for sale, the prices obtained for them must be admitted to have been very high. There was not a good lamb in the whole lot, and so badly had the ewes been husbanded, that the unfounded idea of their being rotten, deterred many from buying of them, who would have been, otherwise, large purchasers. A flock of nearly *forty score* was sent to Shrub's-hill farm, to be wintered; about a fortnight before the auction, this flock returned in number not *six score.* When the King's shepherd was asked what occasioned the mortality, he said he "could not tell," and when particularly pressed to say what he had done with the skins, as they must be valuable, on account of their wool, his answer was, he "could not tell." It was, however, afterwards ascertained that the skins of these sheep were given to one shepherd, and the skins of the lambs to another, as perquisites. The auctioneer, about two months previous, advertised about 3000, but the number actually brought to the hammer did not amount to 1700!! It is an undoubted fact, that, during the time they were at Kew, a man was constantly employed in wheeling away the dead carcasses to the number of 100 a-day!! As it was, the ewes averaged, including couples, about 4*l.*, and one of the rams sold for 43*l.* The Rylands averaged at about 10*s.*; the highest price of the South Downs couples was 2*l.* 5*s.*, and seven ewes, without lambs, were bought for 2*l.* 15*s.*, nearly equivalent to the celebrated sale of Merinos, at 7. each. They would have sold, at least, 100 per cent. higher, had not the six principal purchasers formed a combination." The same report also contains an account of ten South Down and ten Merino wethers, of a first cross, kept together for two years, and treated in every respect alike, belonging to John Leeeh, Esq., of Lea, near Godalmin, Surrey, slaughtered by his butcher, a Mr. Turner, of Thursley, and sent to, and sold by Mr. Henry King of Newgate-market. The ten Downs are stated to have weighed 88st. 6lbs., and to have been sold at 5*s.* 4*d.*; the ten Merinoes, at 87st. 4lbs., and to have been sold at 5*s.* 6*d.* per stone, of 8lbs. The ten Downs are signified to have carried 13st. 2lbs.; the ten Merinoes 13st. 4lbs. of loose fat; on the former, about 10lb. 11oz.; the latter, 12lbs. 12¼oz. The report also contains an account of 103 yearling wethers, of a first cross with the Merino breed, sold by a Mr. Birkbeck, to the above-mentioned Mr. Henry King, and re-sold by him, in Newgate-market, in carcasses, between the 7th and 19th of May, 1812, they weighing 792st. 6lbs., of 8lbs. to the stone, or 5lbs. in the whole less than 7st. 5½lbs. each, at prices varying between 5*s.* 3*d.* and 5*s.* 8*d.* per stone of 8lbs. Of the quantity of loose fat yielded by these, nothing is said; but, both the weight of the whole 123, the quantity of fat yielded by the twenty, and the prices obtained clearly, manifest that their mutton was not of the first quality. In both the March and May of 1812, prime South Down wethers, weighing, when slaughtered, from 8 to 11 stones of 8lbs. each,* were worth, in Smithfield, full 8*s.*, their bodies, in Newgate-market, from 6*s.* 8*d.* to 7*s.* per stone; and in the corresponding part of 1813, in Smithfield, from 9*s.* 6*d.* to 10s.; in Newgate-market 8*s.* 4*d.* to 8*s.* 8*d.* per stone. This I know, from dearly bought experience, having had, both years, many contracts on my hands, for supplies of meat to the army and navy; and in the latter one, an additional one for the supply of the Military College of Sandhurst, in Berkshire, by which concerns I was losing several hundreds of pounds per week. In May, 1813, I purchased in Smithfield, of Messrs. Payne and Claxson, forty South Down wethers. The mutton of these, though considered a bargain, cost me 9*s.* 6*d.* per stone of 8lbs., sinking the offals.

I have always found Merinos very inferior in symmetry, not only to our South Downs, but even the old black-faced Berkshire sheep, which I consider to have ranked amongst the most shapeless of our breeds. They appear to have thick and long crags to their necks, goat-like haunches, long shanks, low rumps and narrow backs, with heavy *fore shoulders* and bosoms; thus, unlike our South Downs, Leicesters, Norfolks, &c., or their crosses, carrying the greater part of their weight on their coarser, and consequently lowest priced parts.

The Merino Society's third Report gives the fleeces of the pure Merinos and their crosses, of its Honorary Secretary, T. G. Bucke, Esq. of Worlington, as follows:—"Of pure Merino rams, in 1810, at 8lbs. 3oz.; of his pure ewes, 6lb. 7oz.; of his crosses, from 4lbs. to 5lbs. 3oz.; in 1811, of his pure rams, and other pure sheep, at 3lb. 13oz., his crosses 3lb. 9oz. to 4lb. 14oz.; in 1812, of his pure rams at 8lbs., his pure ewes 7lbs. 6oz.; of his crosses, 3lbs. 2¾oz. to 4lbs. 4¼oz. The prices of his pure Merino wool are given, in 1810, at 8*s.*; his crosses at from 3*s.* to 4*s.*; in 1811, his pure Merinos and crosses, at 3*s.* 6*d.*; in 1812, at the same per lb. In 1810, his South Downs and Norfolk wools are given at 2*s.* 6*d.*; in 1811 at 2*s.* per lb.; in 1812 they are not noticed.

Where Merinos and their crosses were well fed, well sheltered, well nursed and healthy, they might, in a few instances, have afforded a tolerable remuneration to those who husbanded them. They are, however, naturally delicate, or, as some term them, *flue* animals, and very subject to the mange, or scab, and internal as well as foot rot. Great numbers of them are said to have died of ulcerated livers and sore throats; in the course of the winters they were in favour.

No one acquainted at all with the subject, will attempt to deny that the wool of both the Spanish sheep in question, and even that of their worst cross, has been much finer than that of any which can be at this time, or ever could have been considered our native breeds of sheep, or their crosses with each other; but the grand questions are, would it be prudent for England to destroy the constitution of her sheep, and the fine flavour and wholesomeness of her mutton, merely for the sake of growing a much finer fleece of wool than that which both nature and climate seem disposed to bestow upon her; and that too, at a time when she is scarcely growing enough coarse wool to enable her manufacturers of it to keep their hands employed, or to serve their customers, as appears by the following extracts from the Leeds Mercury newspaper of last week, to be the case at present. "We are happy," says the editor, "to find that the wages of the wool-combers and stuff-weavers have experienced a small advance, during the present week, in the Bradford district. Improved trade," he continues, "has almost rendered the Bradford manufacturers *bankrupt in stock!* The demand is so great as to exceed the supply, and they have in reality, no stocks on hand, or in the price hall." Besides the before-mentioned account, given in the Merino Society's third Report, of the pure Merino wool, producing 8*s.* in 1810, and falling to 3*s.* 6*d.* in 1811, and 1812, whilst in the two last-mentioned years our best South Downs, Norfolk, and Ryland wools were selling at from 2*s.* 6*d.* to 3*s.*, the Merino crosses at but 3*s.* 6*d.*, and during the most wretched state of the wool-trade, first Electoral Saxony wool produced from 5*s.* 6*d.* to 6*s.* per lb. in the London market, clearly manifests, that in the short period of two years, both the pure Merino fleeces, and those of the Merino crosses, but more particularly the former, had become greatly deteriorated.

Again, had the Merino breed continued, and its crosses widely extended themselves, would not there, sir, have been a great probability, that the prices of our finest wools would have been at this time, as low, or lower, than they are at present or have, at any time been? I conceive the present prices of British Merino wools to answer this question in the affirmative. What then, permit me to ask, would our growers have gained by the introduction of Merino crosses?

Many of our most experienced farmers seem to think that our own short woolled crosses have been sufficiently numerous, and quite widely enough extended; and in this opinion, they appear to be not very feebly supported by the miserable prices our short wools have produced for the last five or six years; yet the public. if not much benefited, are greatly convenienced by the great variety they have produced in the weight and size of joints of mutton. In Lincolnshire, Wiltshire, and various other parts of England, up to about the year 1810, a small family could scarcely ever sit down to a whole joint of it. Its legs seldom weighing less than from 12 to 18lbs., shoulder or neck from 12 to 14lbs., and other joints being proportionably large: but, since that date, crosses have been rapidly extending, and have provided, in almost every part of the kingdom, fine wholesome and well-flavoured legs of mutton—saying nothing about those of the little Welch mountaineers, which have existed from time immemorial, but was hard to get, of 4lbs.,—of all the weights, from 6lbs. to 14lbs.; of shoulders and necks from 5lbs. to 10lbs , &c., leaving still a few, but not many, of the 18 stone crocks, and 16 stone Lincolns, for the consumption of epicures, whose cravings a 12lbs. leg of mutton will not satisfy!

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* These sheep would each yield from 12 to 16lbs. of loose fat.

As farther relates to our own breeds of sheep, the pure South Down breeds, notwithstanding the Merino rage, by which its progress could but have been a little arrested, continued steadily to increase the number of their friends to that degree, that the success in letting and selling rams, and selling of ewes of Mr. John Ellman, and the rest of the enterprising breeders before-mentioned, caused about, I think, the year 1810, Mr. John Ellman, jun. of Firles, Mr. S. Grantham, of Stoneham, and Mr. Todd, of Bedingham, Sussex, with several other gentlemen in the western part of that county, to enter the field of sheep-breeding competition; as well as a few years subsequently, the Duke of Richmond, and many other noblemen and gentlemen, all competing in the improvement of their favourite breeds,—whence the numerous crosses amongst English sheep; but few of which are exhibited, except as extra stock, at the exhibitions of the Smithfield club. They have, however, reduced joints of mutton, as before intimated, to very convenient sizes. A Mr. John Hampshire, of Patcham, near Brighton, Sussex, had, some twenty years ago, an excellent flock of pure South Downs, whence, I conceived, derived the Hampshire breed of Downs, husbanded by Mr. Coke, of which that honourable and intelligent gentleman spoke at the Thetford wool fair, when speaking of his cross with the "Hampshire South Down;" as I know of no original or pure South Down the county of Hants can claim as its own, the black-faced sheep, husbanded in Hampshire, being for the most part from a cross between the old black-faced Berkshire, and the pure South Down breeds; as are most of those fattened in the west of Sussex. Crosses between the pure South Downs and Leicestershire breeds, and the pure Downs themselves, have been much husbanded in Norfolk, Suffolk, Essex, and Cambridgeshire, as well as in our western and midland districts, in which the Hereford, or Coteswold and Ryland breeds are still favourites, but from which the large-horned breeds have, in a great degree, disappeared during the last twenty years; and, though to a less by Lincolnshire farmers and graziers than by any others, to a considerable extent in all our sheep districts south of the Tyne. There are, too, numerous crosses between the pure Down and the horned Norfolk breeds that are much husbanded, both in Norfolk, Suffolk, Essex, Cambridgeshire, and in various parts of our midland and northern districts. In Kent, neither the farmers nor graziers seem at all partial to crosses, as indeed is the case with most of those east of the river Arun, in Sussex: the former evidently preferring their own pure breeds, and those of the pure South Down to any cross; which, with the exception of the before-mentioned cross between the short woolled Down and old Berkshire breeds being fattened, and the ewes of it kept to breed early lambs to be fattened for the spring market, seems to be the case of the latter; but the Kents, which are very useful sheep, are not near so numerously husbanded in Sussex, as are the pure short-woolled Downs in Kent. The pure Down and its crosses are husbanded to some extent in Ireland, Scotland and Wales.

As regards the sheep management of different parts of England, this is in a great degree governed by locality. On the South Downs of Sussex, part of the south, or rather south-east of Kent, the south of Hampshire, Dorsetshire, Devonshire, and Cornwall,—say from ten to, in some instances, twenty miles from the south coast of England, extending from the eastern extreme of Romney-marsh to the Land's-end—the flocks are depastured on the sheep-downs, and the sheep intended to be grass-fattened in the intervening marshes, *both winter and summer*, lest the former should be unusually severe, and folded either on fallows, clover, &c., leys, or even if the folds are not wanted any where else, between the wheat and spring seeding on the sward of the Downs itself, the ewes having hay with rape and turnips, or some other artificial food, about a fortnight or three weeks before their lambing time, or sooner, if they stand in need of it, and are taken into a close, or thatched and littered fold, to yean; the wether store, as well as fattening wether flocks, generally shift for themselves. The graziers who have land in Romney-level, lay on fattening sheep lightly from 3 to 3½ per acre, according to the quality of the soil and quantity of its herbage, and let them take their chance throughout the winter. I have frequently known South Down sheep that were thus treated, if they were in tolerable condition when turned into their keep, sent full three quarters fat to market, in the April of springs in which mutton was scarce and dear, and sold to the butchers at from *5s.* to *10s.* each more than they and their fleece would have produced had they been kept till June and shorn. This sheep-fattening system is also pursued in Kent, with those graziers who have land in Romney-marsh; but by those of the interior of that county they are generally bought in lusty condition, about Michaelmas, feed off the meadow and seed-grass rowings, and are subsequently put on oil-cake and hay, till the spring, for the purpose of making manure for their hop plantations. I have often seen on Romney-marsh, in the very depth of winter, the sheep, principally Kents, lying, apparently very contented, on a piece of pasture-land, fed down so close to the roots of the grass as to almost resemble the floor of a clayed barn, without even the appearance of a morsel of hay, or any other forage near them. They, the Kentish sheep, are stocked on good land for the winter, at the rate of about 2½ per acre. It would seem, too, that they were the first to discover the fattening quality of oil-cake by eagerly eating of a pasture manured with it.

The South Down sheep, allowing for their difference in size, consume much more pasturage than our larger and more quiet breeds; they have a habit of huddling together, and wandering about their pastures for a long time, after being in any way disturbed or frightened, thereby destroying much of their herbage with their feet; but their being very hardy and free fatteners, is supposed to remedy this evil.

The flocks husbanded on the north borders of England, which, for the most part, consist of the white-faced Scotch, or Cheviot breeds, with a few of the black faced Scotch, are still more hardy than the South Downs. The following account of the former was given by Sir John Sinclair, in his speech at the before-mentioned meeting of the Edinburgh Society, in 1791.—"A friend of mine, who resides in the north of England, in the course of our correspondence on sheep and wool, mentions a very curious circumstance. 'About fifty years ago a vessel was stranded on the coast of Cumberland, that had on board some of the native sheep of Scotland, which were put on shore, and purchased by the farmers who lived at Wasdalehead, in the neighbourhood of Keswick. It was discovered that they possessed an instinct for foreseeing an approaching storm; that they braved the coming blast, and, taking the most exposed side of the mountains, were never liable to be covered by the snow. The inhabitants of Wasdalehead thought this breed such an acquisition, that they wished to preserve it entirely to themselves, and came under an obligation to each other, that none of them should ever sell a ram, and never above five female lambs in a season. Means were, however, found, by smuggling and otherwise, to get the better of the shameful stipulation, so that they are now very common in all the mountainous districts, in Cumberland and Westmoreland: they are known under the name of the Hardwick breed; and, though in a great measure extirpated in Scotland, may be found in very great perfection in the northern parts of England.'"

It appears to have been the pretty general practice, forty years ago, to milk the ewe flocks, and either make ewe-cheese, or mix and churn it with that of the cows; and some of the small farmers are said to follow it to this day. The milking, which was performed every morning, chiefly by women and children, commenced the day after the lambs were taken from the ewes, and continued till about the middle of September, when the ewes were dried off. and well fed, preparatory to their receiving the visit of the ram. They are said to have yielded from a pint to a pint and three quarters, some a quart, per day. They were milked in little stalls made for the purpose, and are said to have set their legs with as much firmness as a gentle milch cow. Some of the milkers, I have been told, would milk twenty-five of them per hour. Their udders are represented as being kept very free from ulcers, by their being regularly dried off. They, for the most part, take their chance through the winter upon the hill, till a little before yeaning time, when they are closed and fed.

In Norfolk, Suffolk, Essex, and Cambridgeshire, and indeed in most other inclosed districts, after the summer and autumnal pastures and seed and meadow grass mowings are consumed; they feed both their breeding and fattening, as well as their young store sheep and lambs, upon meadow and seed hay, rape, turnips, both Sweedes and rounds, winter tares, &c. The Norfolk farmers and graziers, now even, seem by far more partial to turnips than any other of the before mentioned green winter food. They allow an acre for every ten fattening wethers, and to every twelve breeding ewes; both where they are unable to eat their allowance, being fallowed by the tegs, or previous year's lambs, which generally make very clean work, and contribute greatly to the improvement of the soil. The quantity of grasses they allow their sheep is, I believe, an acre to every four or five, according to its bulk, and the quality of the land on which it grows. They make it a rule to keep their fattening sheep as far into the spring of the year as their turnips will allow them. They are exceedingly good nurses in lambing time; they invariably placing their ewes, during its continuance, in well littered closes, or standing littered folds, and paying them very great attention. Their sheep, at this time, are almost entirely composed of crosses, between their own crosses and South Downs, and the new Leicester breeds; pure South Downs, and crosses between the west of Sussex South Downs, or, as they would be more properly denominated, the half-bred Berkshire breeds; though their original horned breeds are not, I believe, entirely extirpated. These last mentioned breeds of sheep, though a little long-shanked, produce as bright and fine-flavoured mutton, as any that have been fattened in any country; they are, however, scandalously libelled by the late Mr. A. Young, in the second volume of his "Farmer's Tour," published in 1771. In speaking of the Norfolk sheep husbandry, he says: "This estimate is made with a view to Norfolk sheep; but if better sheep were taken, for instance, Dorsetshire and Wiltshire wethers, I apprehend the profit would be more considerable." Every body who knows any thing about sheep, and acquainted with the horned Norfolk, must know that the breed is preferable to both the Wiltshire and Somersetshire breeds. The horned Norfolk carried quite as much loose fat as any other sheep of its weight, and, generally speaking, considerably more kidney fat than the sheep of any breed whatever; whilst the kidneys of the Wiltshire and Somersetshire crocks, which generally died low, as to loose fat, and are not unfrequently high coloured, had often scarcely fat enough to hide their lean kidneys.

In the Fens, both store and fattening sheep are fed from the early part of November till the middle, or latter end of January on tares, or more commonly on cole-seed, and then removed, for the land on which they were grown to be sown with oats. On the uplands of Lincolnshire, as well as throughout Leicestershire, Northamptonshire, and the adjoining counties, the sheep management is very similar, except that the fold is less used in the three former counties, than perhaps in any other part of England, it being entirely confined to the poor champion lands, the extent of which is not great. In those inclosures that are too large to be fed off in their entire state, they divide the inclosures by placing a row of hurdles across it; but often turn upon the whole piece at once.

As relates to folding, the most general practice seems to be, not to use the fold on inclosures of less than from thirty to forty acres, as where they are too large to be fed off without dividing, they are parted by hurdles in the manner before mentioned, and the young sheep turned into them to eat the refuse of the breeding ewes and fallowing sheep, after the Norfolk system; but, on our champion lands it is in general use. In parts of Wiltshire, Dorsetshire, Somersetshire, Gloucestershire, and Buckinghamshire, it is used throughout the year, even to lambing in it. This last appears to be cruel husbandry, but both ewes and lambs generally do well. The foldtier of our smaller breeds, saying nothing about the Welch ones, is considered to be worth from 18*l.* to 20*l.*; of our larger ones 20*l.* to 22*l.* per 100, per annum. Two hundreds of the former are capable of folding an acre in ten, of the latter, in eight nights.

The following are about the dead weights of the different breeds of our sheep. Pure South Downs wether, 7st. 4lbs., to 11st.; ewe, 6st. to 10st; cross between Down and Norfolk wether, 8st. 4lbs. to 12st.; ewe, 7st. to 10st. 4lbs.; between Down and Leicester wether, 9st. 4lbs. to 13st.; ewe, 8st. 4lbs. to 11st. 4lb.; between Norfolk and Leicester about the same; Ryland wether, 6st. 4lbs. to 9st.; ewe, 5st. 4lbs. to 8st.; Cheviot, or North Border wether, 7st. to 10st.; ewe. 6st. to 9st.; black faced Scotch wether, 6st. 4lbs. to 9st.; ewe 6st. to 8st.; Hereford, or Coteswold wether, 9st. 4lbs. to 13st.; ewe, 8st. 4lbs. to 11st. 4lbs.; Welch wether, 5st. to 7st.; ewe, 4st. 4lbs. to 6 stones of 8lbs.; when fattened for prize show, the weight of the pure South Down wether is from 13 to 18st.; of its cross with the Leicester, 14 to 22st.; with the Norfolk 15 to 23st.; of the cross between the Norfolk and Leicester about the same weight; and of the Hereford or Cuteswold breed 18 to 26 stones of 8lbs. With the prize weight of the Scotch and Welch breeds, both of which have been shown fat, I am unacquainted. As relates to the quality of wool, that of the pure South Down is the finest; of the Ryland and Cheviot, and one or two of the crosses between the Down and Norfolk, second; of the crosses generally and Dorset breed, third; that or the Kentish, old Lincoln, old Leicester, Wiltshire, and Somersetshire, fourth; and that of the half woolled, half haired, little black faced, horned Welch and Scotch breeds, fifth.

I have before intimated that I conceive England to be already husbanding too many short woolled sheep, for the benefit of her trade and landed interest; and might have said her revenue. In the course of my inquiries into the subject, I have found the opinion of at least nine out of every ten of those farmers to whom I have spoken on it to harmonise with my conception. I am confident that it will never answer the purpose of the English sheep breeder to cross with any foreign breed that has originated even five geographical degrees south of England's chalky cliffs. The constitution of such a cross would never be able to withstand the severity of our climate, even in our midland districts. As relates to the symmetry of our present breeds of sheep, no animal can be brought from any part of the known world to improve it. Why then cross with foreign blood to contaminate our own? It seems to be the general opinion of many good farmers that those who wish to improve the staple of their fleece had much better pursue the system of Mr. John Ellman, and the rest of our rationally enterprising breeders, than to pollute those breeds that are already well enough, by introducing the delicate constitutions of foreign sheep.

Thomas Herbert.

21, *Elizabeth Place, Lambeth, Sep.* 16.

HORTICULTURE.

(From Prince's Pomological Manual.)

PEARS.

(Concluded from page 332.)

Angleterre. *Pr. cal. Roz. Duh. Coxe.*

The form of this pear is exactly pyramidal; its height thirty-three to thirty-six lines, and its breadth twenty-three to twenty-five, but there are occasionally some of larger and some of smaller dimensions; the skin is generally light green without any other particular shade, but sometimes it becomes a little yellowish at perfect maturity, and the sunny side acquires a reddish tint—in all cases it is dotted over with numerous grayish specks. The flesh is very melting and replete with rich and pleasant juice. It ripens in September, and soon after becomes soft; the seeds are blackish brown, large and perfect. There is no variety more extensively cultivated at Paris and its environs than this, and during the month of September the markets are filled with the fruit. The tree is very productive and seldom fails to afford a crop; it is only propagated on the pear stock, as it does not succeed on the quince.

I perceive that Forsyth quotes this from Duhamel as a synonyme of the Brown Beurré, which is a great error, it being a very melting pear, and therefore the appellation of Beurré, in every case misapplied.

Mouthwater. *Pr. cat.*

This pear is most commonly of an exact pyramidal form; its height thirty-three lines and its greatest diameter twenty-six, tapering very much towards the stalk. Sometimes it assumes a turbinate form, of equal breadth as height, being twenty-eight or twenty-nine lines in each direction; the position of the eye is even with the outer edge of the fruit, and the stem is green and eight or nine lines in length; the skin is even at the period of maturity of an uniform shade of rather dark green, and is also perfectly smooth: in some cases, however, one may observe a grayish streak running lengthwise of the fruit. The flesh is rather firm, but melting, and of a pleasant flavour, with some sweetness and richness. The seeds are brown, and the fruit ripens at the end of September or early in October. The tree is thrifty, its foliage dark green, and it has altogether a very healthy appearance. Another variety, totally different from this, is cultivated erroneously by the same name in some collections. Miller describes this pear also under two distinct heads, as quoted above, (see Mil. Gard. Dic. No. 30 and 36) and although he varies in the descriptions, and states that one is round and the other long, still I consider them as without doubt synonymous, for I find no distinction of the kind advanced in any French publication, and he has referred to no authority but in the one case. This error Forsyth copies from him.

Ronville. *N. Duh.*

This pear is very oblong, being usually three inches and two to four lines, and sometimes even near four inches in height, and from twenty-five to twenty-seven lines in its greatest diameter. The stem is enlarged at the point of junction with the fruit, and from ten to twelve lines in length. The skin, which is at first light green, becomes a little yellow at maturity, and is entirely dotted over with a great number of small grayish specks. The flesh is firm, somewhat breaking, of a pleasant flavour, partially sweet, and sometimes gritty around the seeds, which are brown and well perfected. Duhamel himself remarked, that there were commonly but four cells in this pear; others, however, have observed five, but not a greater number. As is the case with a great many other varieties, one of the two seeds which are in each cell is almost invariably abortive. This fruit ripens at the end of October or early in November. I have quoted the Ronville, or Martin-sire of Quintinye and Evelyn, with an expression of doubt, because they mention theirs as ripening in January. It appears, by referring back to Rozier, that although he and the New Duhamel doubtless refer to the same fruit, there exists some variation between their respective descriptions. Miller's description likewise varies somewhat from the preceding one.

Beauty of Autumn. *Pr. cat.*

This pear is much elongated, and not of very regular form; it is rounded, and in general raised by swellings or irregular projections, and is three inches and a half in height and two inches in diameter at the widest part. The stem is fifteen to eighteen lines in length, and it has commonly one or two projecting ridges around it. The skin is yellowish on the shaded side, and a fine red next the sun, entirely dotted over with small fawn-coloured specks. The flesh is white, half melting, occasionally somewhat gritty, with a pleasant and rather high flavour, which is very agreeable. The fruit attains to maturity early in September, and readily becomes mellow. The tree is vigorous, and may be propagated on either pear or quince. I perceive that in the London Horticultural Society's catalogue, the Vermillon d'été is ranged as a synonyme of this variety, but I follow the New Duhamel in keeping them distinct, in which other French authors coincide.

Harvard. *Pr. cat.*

This fruit is generally fair, possesses a fine flavour, and is valued as one of our best native fruits. It received its name in commemoration of the founder of Harvard University, it being satisfactorily established that it is a wilding of Cambridge, Mass.

The branches grow upright, have thorns on them, and are remarkable for the yellowness of their bark during the winter and other periods when vegetation is dormant. The fruit ripens about the first of September; it is above the medium size, weighing five to six ounces, and highly esteemed; some even rank it second only among our native fruits to the Seckel. It is a constant and full bearer when the tree has age; its rapid growth preventing its bearing for four or five years, which is a good peculiarity. Its excellent qualities make it deserving of a recommendation to nurseries and the public, as a very superior pear. It may be added, that it is in favour with the marketmen, selling at four to five dollars per bushel.

Guernsey. *Pr. cat.*

This very fine pear is of the melting kind, larger than the White Doyenné, and ripens in September. It should be gathered as soon as the stem will separate by a clean fracture, and ripened in the house, and must be eaten as soon as it becomes yellow and mellow, as it will not keep. It is said to be more juicy, and much more delicious than the White Doyenné, and in one case a fruit measured eleven inches in circumference. The tree was raised from seed in the western part of this state, and the grafts were politely transmitted to me by J. K. Guernsey, Esq. of Monroe county, from respect to whom I called it by the title here adopted.

Johonnot. *Pr. cat.*

This native variety received its title from its having been originated by G. S. Johonnot, Esq. of Massachusetts. That gentleman states, that its first fruit was produced in 1823; the stem is much shorter and thicker than is common with pears, and there is often a small protuberance on the fruit near the point of its insertion, similar to that on some Pearmain apples; the skin is nearly as thin as that of a peach, and of a dull yellowish brown hue. This pear is of medium size, and of a peculiar and irregular form; the period of maturity is the last week in September.

Prince's St. Germain. *Pr. cat. Lond. hort. cat.*

This pear is a seedling of the French St. Germain or Inconnue la-Fare, impregnated by the White Doyenné, and was originated from seed by myself about twenty-six years since; the original tree, which remained for several years among a cluster of seedlings without much chance for expansion, did not produce fruit till the ninth year. It is now in the most vigorous state, and stands near the entrance of one of my nurseries. Young trees to the number of many thousands have been propagated from it, and are now to be found in every part of Europe, as well as of our own country. The growth denotes health and vigour, and the tree comes early into bearing. The young wood is of a dark reddish brown colour, marked with small specks of white; the buds are large and sharp pointed; the fruit is on the average of a larger size than either of its parents, of a russet green colour, with a red cheek; its flavour is similar to that of the French St. Germain, but it has the advantage of always being a perfectly fair fruit, and a great bearer. The pears should be gathered in October and laid separately on shelves, or carefully wrapped in paper, when they will gradually ripen during several months, and may be preserved until late in the winter. Next to the Seckel, I consider this as the finest table pear our country has yet produced.

Rushmore's Bonchretien. *Pr. cat.*

This is a native pear of very large size, and one of the greatest bearers. It is flat at the head, and very regularly rounded for nearly two-thirds of its length, but diminished towards the stem, which is long and large; the growth of the tree is particularly strong and rapid, and it soon arrives at mature bearing; the fruit when ripe is a pale yellow colour, with a red cheek; it is breaking when ripened on the tree, but becomes buttery when matured in the house, and is considered but a tolerable table fruit, the flesh being coarse; but this taken in connexion with its being a most excellent pear for baking and cooking, and ripe at a season when few other pears are so, and producing very abundantly, it may be considered as one of the most useful pears in a general view; it ripens in succession, from the end of August to the end of September, and may be preserved without rotting a considerable time, and when full ripe, can be used for baking without sugar.

It is very much cultivated on Long Island, and particularly by those who supply the markets with fruit, it being well suited for that purpose.

Long Rosewater. *Auth.*

I adopt the above title for a pear received about eight years ago, from Paris, under the name of Caillot rosat, and I think it may possibly prove to be the German variety so called, and mentioned in the Pomological Magazine as a long fruit. The tree is remarkably vigorous in its growth, and its form is very regular and handsome. It last year produced fruit of a delicious quality; the pear was nearly as long as the Epargne, not so large at the base, and diminishing towards the stem; its colour was green when gathered in October, but it acquired a yellow hue when at maturity, which was in November or December. The flesh was very rich, juicy, and high flavoured; and although I had but one fruit, and did not therefore test its value as a keeping pear, I was highly gratified with it, and I deem it one of the very best of its season. I have as yet seen no description whereby to fully identify it; but the appearance of the tree is so characteristic, that it cannot readily be mistaken for any other, and it must without doubt be known to some of the numerous writers on the subject.

Summer Melting. *Pr. cat.*

This is a tree of the most vigorous growth and flourishing appearance, shooting erect into a stately form; the fruit is of fair size, ripens early in August, and it has by some, been considered the best pear of its season. After it comes into bearing, it increases annually in fertility and the quantity of its produce, but it attains considerable size before it produces freely.

I received the original tree of this variety, in 1802, from a person then resident in Baltimore, who was very curious in fruits, and who had a number of French varieties of pears. It was on a quince stock and soon bore fruit, which was larger, handsomer, and more melting than any I have since had on pear stocks.

Red Cheek. *Pr. cat.*

This pear is cultivated at Rhode Island, under the name given above as a synonyme, whence it was brought to Long Island. It is a bell-shaped fruit, of a beautiful yellow colour, with a red cheek; it is not quite as large as the St. Michael or Virgalieu,—is considered a very good fruit when not over ripe, and the tree bears well; it ripens at the latter part of August.

A tree imported from France, but whose name is unknown, has produced fruit precisely like the foregoing, and it is therefore most probable, that the variety is of French origin.

Pound. *Pr. cat. Coxe. Fes. Amer. Gard.*

Next to the White Doyenné pear, the present variety is the most common in this vicinity, it being of so great size and subserving such useful purposes, that all desire to possess it. It is the largest of all the older class of pears, and there are but three or four of those more recently introduced that can compare with it in this respect. It often weighs from twenty-five to thirty ounces, and one was exhibited in New Jersey, about four years since, weighing forty and a half ounces. It is of uniform shape, full and round at the head, and diminishing gradually to the stalk, which is large and long; the skin is of a greenish hue, with a brownish russet cheek next the sun; the flesh is solid, and when cooked acquires a red colour. This fruit is not suitable for the table, but is esteemed for baking and preserving. It will keep till late in the spring, and may be used from time to time as required for the above purposes. It is preferable to allow the pears to hang on the trees until late, when after gathering, they should be packed away in chaff, or wrapped in paper, which by excluding the atmosphere, keeps them from drying and preserves their freshness, consequently rendering them more juicy and tender, and when so treated, they become towards spring of a yellow colour, and the russet cheek acquires a fine tinge of red.

The tree grows exceedingly strong even from its first advance, and its progress is very rapid, perhaps none more so, forming one of the largest of its class, and being also exceedingly hardy, and subject to no maladies or defects. Large quantities of the fruit are put up in this vicinity in barrels for the markets of New York and for exportation.

Swan's Egg. *Pr. cat. For. Coxe.*

This fruit is of medium size, and the form elliptical; the skin is green, slightly tinged with brown or russet; the flesh quite melting, and abounding with juice of an agreeable musky flavour. Its period of maturity is November, and it may with attention be preserved for some time.

Miller does not describe this pear, and Forsyth, after quoting the *Poire d'œuf,* or Egg pear of Duhamel, copies about half of the description of that variety, and adds thereto some further remarks of little import, and varies the time of ripening. In truth, however, these fruits would appear to be very distinct, and Duhamel states the time of ripening of the Egg pear to be the end of August or beginning of September.

Angleterre de Noisette. *Pr. cat.*

This is a recent seminal production, said to have been raised by the person whose name is attached to it, and to be a variety of the Angleterre of a larger size and later at maturity.

Beauty of Brussels. *Pr. cat.*

This fruit has the form of a Beurré; the skin which is previously green, becomes yellowish at the period of maturity, which is during the month of October; the flesh is white, delicate, and of agreeable flavour, and the tree is of thrifty growth. The Dict. d'Agriculture gives a very similar description, but the Bon Jardinier describes it as a superb fruit of good quality, and ripening in August.

Golden Colmar. *Pr. cat.*

The French describe this variety as being more oblong than the old Colmar; the flesh melting and very good, and the fruit at maturity in March.

Black Seeded Beurre. *Pr. cat.*

European writers state that this fruit is of medium size, and that it is very highly esteemed in Flanders, the tree is exceedingly productive, and the fruit is at maturity in September. I imported this pear some years since; but its value being little known, it has been as yet but partially disseminated through our country.

Sieulle. *Bon. Jard. Pr. cat.*

This new pear was raised at Praslin, at the seat of the Duke of Choiseul, by a person whose name it bears. Its first introduction to notice was in 1815. The fruit is of medium size, resembling the Crasanne in form, but more swollen towards the base; the stem is long, and inserted in a cavity surrounded by several small lobes; the eye is slightly depressed; skin delicate, of a lemon colour, partially washed with red next the sun, flesh half-melting, the juice sweet, rich, profuse, and agreeable, the fruit ripens in October and November, and the tree is handsome, vigorous, and productive, and may be propagated on both pear and quince stocks. This very fine variety is cultivated at the nursery establishment of the author.

Officers of the Horticultural Society of Rensselaer County.

We perceive by the Troy Sentinel that this society has gone into successful operation. The constitution and by-laws are substantially the same as those of the New York and Albany Horticultural Societies. The officers are, President, *John D. Dickinson,* of Troy; 1st Vice-President, *Cornelius Lansing,* of Lansingburgh; 2d Vice-President, *Herman Knickerbacker,* of Schagticoke; 3d Vice-President, *Richard P. Hart,* of Troy; 4th Vice-President, *John Carpenter,* of Hoosic; Corresponding Secretary, *O. L. Holley,* of Troy; Recording Secretary, *Albert P. Heartt,* of Troy; Treasurer, *John McCoun,* of Troy.

[*N. Y. Farmer.*

GRAPES OF THE SECOND GROWTH.

Mr. Smith: *Columbia, S. C. Dec.* 24, 1830.

Dear Sir,—Seeing in your most valuable agricultural journal of the 17th inst. No. 40, a short article entitled "Grapes of the second growth," I presumed it would not be unacceptable to some of your readers to have the mode of producing them at pleasure. To those who raise grapes for the table, it must be an advantage to be able to obtain them late in the fall as well as at the usual season.

To attain this object, nothing more is necessary than to induce in the summer, the growth of the buds intended by nature to furnish fruit the following year. This is very easily done with a vigorous vine; but not with a weak one, and if it could be done, it seems to me that it would be unadvisable to attempt it, lest the vine be materially injured by it. Even with very strong vines it would not be proper, perhaps, to induce such a growth on more than one or two branches of a vine.

After the vine has bloomed, at the usual season, and the fruit is formed, select one or more strong and well grown shoots of the present spring's growth, and prune them as you would in the winter prune the shoots of the preceding year's growth, taking particular care to suppress all the side shoots or interleaves, as also the fruit of those branches. The effect of this will be that the buds which, but for this operation would have remained dormant till the next spring, will grow and produce fruit which will ripen one month or two later than that on the other parts of the vine. It is easily conceived that such an operation may be injurious, in this that the buds of this second growth may not be sufficiently matured to produce a good crop the following year, and for this reason, I think it advisable to take only one branch or two of a vine, and suppress it altogether in the following winter pruning. When, however, as was the case this fall, no severe frosts occur till very late, such second growth may be sufficiently ripe to be treated as the rest of the vine. The cultivator will, however, exercise his judgment on the propriety of this. Vigorous vines only, as I said above, are to be subjected to this process. Those which have succeeded best with me are, my Madeira, which bears it without any apparent injury, and also the Isabella. These are the only two kinds on which I have tried the experiment, except on weak white grapes on which it failed; but I can see no reason why other strongly growing vines would not likewise bear it. It is to avoid the growth of these buds that writers on the subject of the vine (in this country) recommend not to top the shoots of the vine, unless it be done very late, when the fruit is nearly ripe, and with a view to promote its maturity, an effect which I doubt much is promoted by the operation. This was not, at first, discovered by an act of design, but rather by an accidental one. Many years since I was induced to top the bearing shoots of some of my vines, with a view to promote the growth and maturity of the fruit. I failed in my object; but obtained a second crop which matured, however, unequally and not sufficiently well for wine, though the grapes gave me a succession of fine fruit for the table. I have since occasionally performed the necessary operation, which is merely to cut the top of the shoot down to four or five buds, taking off at the same time, as stated before, all the interleaves or side shoots. If you think, sir, the above of consequence enough to have a place in the American Farmer, insert it, and believe me with respect, your obedient servant,

N. Herbemont.

The Banana and Pine Apple, have been cultivated with success near Tallahassee in Florida, during the last season. More recent experiments in the cultivation of Sugar, under more experienced hands, have produced a much more profitable crop than heretofore.

(From the New England Farmer.)

NAMES ON TREES.

In the last number of Dr. Brewster's Journal there is a curious paper on "Inscriptions in Living Trees," translated from the Swedish. Words or figures are often idly cut on trees; and the general opinion is, that they are soon obliterated by the growth of the wood. It appears however, from a number of examples cited that they are faithfully retained in the tree as long as it endures; and that, if it is not seriously injured, the number of concentric rings of wood found above the inscription will accurately denote the time when it was cut. Professor Laurell of the University of Lund, made two inscriptions in two beech trees, in 1748. The one was opened in 1756, and had the inscription remaining, with eight rings of wood over it, the other in 1764, and had sixteen rings over it. Bishop Faxe sent lately to the museum of Lund two pieces of wood from a tree which grew near Helzinborg, and which, during the sawing and cleaning, separated in such a way, that the inscription stands right on the one piece but reversed on the other. It is "F. M. d. 21, I. 1817." but the letters and figures are placed below one another, in four lines. It was cut in 1828, and the inscription was found to be covered with nine concentric layers of wood, the tenth being imperfect. Several other examples are given, but they are less precise.

RURAL ECONOMY.

(From the New England Farmer.)

GLANDERS IN HORSES.

Mr. Fessenden,—If consistent with the object of your useful paper, will you have the goodness to answer the following questions:

1. What are certain signs that a horse has the disorder called the *glanders?*
2. Is there any certain cure for this disorder?
3. If there be, by what means can it be effected?

I am acquainted with some things said to be useful, and have employed them, but with very little success. *I* know of no cure; if there be one, I very much wish to know how it can be effected. In answering the foregoing inquiries, you may confer a favor upon more of your patrons than ONE.

Worcester County, Dec. 7, 1830.

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Remarks by the Editor.—An obliging friend in this vicinity, who has the care of many horses, has furnished us with the following reply to the above.

Glanders, commonly called the Horse Distemper, is always accompanied with a discharge of matter from the nostrils, and a swelling of the glands under the throat. When the bones become rotten in that part, it is generally incurable—and this may be known by the bad smell which it produces in such cases; for the most part it is sure death; not one in a hundred recovers.

The treatment recommended in Gibson's Farriery for this disease, while in its first and second stages, is, to make use of purges, diaphoretics, and roweling in the hinder parts. We imagine that roweling in the breast will answer the same purpose. To clear the nostrils, Gibson recommends passing the fumes of burnt brimstone or burnt leather into the nose of the horse, and after the matter has been discharged, to syringe his nostrils with brandy or red wine. Afterwards, he says, a small quantity of Unguentum Egyptianum, dissolved in oil of turpentine, may be injected through a large pipe, for the purpose of cleansing the ulcerated parts. A particular account of this disease will be found in the N. E. Farmer, v. 8, p. 412.

He who accustoms himself to buy superfluities, may ere long be obliged to sell his necessaries.

DUTCH DAIRIES.

For the sake of cleanliness, the tails of the cows are tied to the roof of the cow house with a cord during the time of milking. The cow houses both in Flanders and Holland are kept remarkably clean and warm; so much so that a gentleman "spoke" to Redcliff "of having drank coffee with a cow keeper in the general stable in winter, without the annoyance of cold, dirt, or any offensive smell." The Dutch are particularly averse in unfolding the secrets of their dairy management, and notwithstanding the pointed queries of Sir John Sinclair on the subject, no satisfactory idea was given him of their mode of manufacturing butter or cheese. Loudon.

A GOOD COW.

The Northampton Courier states, that a cow, in that town, owned by Dr. Barrett, has given milk, and made butter after the following schedule: she has been milked for the last fortnight, every eight hours, and at each milking, has yielded a pailful, measuring ten quarts, the weight of the milk, averaging daily 49½ pounds. Her milk has yielded daily, 2 lbs. 5 oz. of butter, making 32 lbs. 6 oz. in 14 days; from one milking alone, one pound and six ounces were made, which will give four pounds and two ounces of butter. in one day from one cow! The butter was of a superior quality, and sold for a shilling per pound, while the usual price in the village has been but ten cents.

MISCELLANEOUS.

(From the American Almanac for 1831.)

CLOUDS, FOGS, AND MISTS.

The presence of the ocean of vapor, which we have described as constantly ascending from the earth, and constituting part of the atmosphere, is, as has also been observed, not always evident to the sight; in its elastic state it is always invisible, and, therefore, it is only in some of its changes that the eye can detect it. By one of the most remarkable of these, those masses of visible aqueous vapor are formed, which, floating in the sky, or drifting through it with the wind, at different elevations, with every variety of color and form, are called *clouds;* or which, recumbent on the surface of the land or of the water, and spread over greater or smaller portions of them, are denominated *fogs,* or *mists,* according to their intensity. In all cases, their composition is similar, and consists of the moisture deposited by a body of air, in minute globules.

Their formation, in every position, is a consequence of decrease of temperatures in some parts of the atmosphere where a certain proportion of aqueous elastic vapor is present; but in those where the latter condition may be wanting, it is evident that the developement of cloud will not follow the decrement of temperature. Nothing is more common than the fact of the necessary conditions existing in some of the atmospheric strata, and at the same time being absent in others; and thus we can understand the causes of the alternate beds of clouds and clear air, which often diversify the sky in serene weather. We can hence also comprehend how, in stormy weather, a solitary cloud sometimes appears to stand stationary over a mountain-top, while myriads of other clouds drift past it on the gale. An observer on the summit feels the multitudinous dew-drops of the seemingly fixed cloud sweeping by with great velocity, and discovers the stationary aspect which it exhibited below to be altogether an illusion. The fact is, the inferior invisible beds of air are relatively warmer and more moist. They dash against the sloping side of the mountain, and are reflected up to the plane of condensation in the atmosphere, where they give out their excess of water in the form of clouds. Above the cooling influence of the mountain-top the tem perature of the air may not be depressed to the same point, and hence it continues clear.

If the globules of water which constitute a cloud, descend, in consequence of their weight, and come once more within the influence of an elevated temperature, the aqueous vapor necessarily becomes again invisible. In this way, the under surface of a stratum of clouds becomes nearly parallel, or rather concentric, with the surface of the sub-adjacent landscape over which it floats. Above this first range of clouds the temperature may still be considerably higher, and hence another large body of air must be passed through, before a temperature sufficiently low be arrived at, to cause a second deposition of clouds.

M. Fresnel ingeniously supposes that the air contained between the minute globules of vapor, or the very fine crystals of snow, which form a mass of clouds, is always of a higher temperature than the surrounding clear air. He supports this opinion on the well known facts, already alluded to, that the rays of the sun will pass through the air without heating it, unless the air be in contact with water, land, or some other reflecting object. The cloud accordingly forms such a body as will stop the sun's rays, and force them to warm, not only the air in external contact with it, but all the air in its interstices. It follows, therefore, that though the mass of waters in a cloud be heavier than the surrounding air, the warmer air in the interior of the cloud buoys it up, and causes it to float.*

M. Gay Lussac, on the other hand, refers the mounting of clouds in the air to the impulsion of the ascending currents, which result from the difference of temperature between the surface of the earth and the air in elevated regions.

The formation of clouds may be observed with most advantage in Alpine countries, as they are there so frequently produced under the eye, upon the sides or the summits of mountains, by the condensation of the vapor in the sheet of air immediately over them. A mountain cloud is at first of but small extent, but it enlarges insensibly, and is swept by the winds into the bosom of the air, where it either meets and unites with others, or various tufts of these are scattered over the sky. These aërial groups appear, while drifting through the sky, to avoid dashing themselves upon the mountain peaks in their course, and, as if endowed with instinctive repulsion, they bound over the crest of a mountain in a concentric curve, and slide down into the valley on the other side. The French naturalists, with much plausibility, ascribe this beautiful phenomenon to electricity. M. Bory de St. Vincent thinks, that, when small tufts of cloud are carried towards the sides or the summit of a mountain, they move with less rapidity than the force (wind) which moves them, and this force consequently arriving sooner at the obstacle, is reflected, and meets and checks the cloud in its progress.

The mean height of the clouds may be conceived by the following extract from Mr. Leslie. "We shall not err much, if we estimate the position of extreme humidity at the height of two miles at the pole, and four miles and a half under the equator, or a mile and a half beyond the limit of congelation. This range is nearly parallel to the curve of perpetual congelation in the polar regions, but bends nearer to it in approaching the equatorial parts."

FOUL CASKS CLEANSED.

Butter tubs and other vessels, which have become foul by use, can be easily cleansed by filling them with any kind of meal or bran and water, and permitted to stand till fermentation takes place—casks which have from any cause become filthy and musty, may be cleansed in this way. And inasmuch as this mixture, becomes more suitable food for swine, than before, there is no expense attending it.—*Mass. Spy.*

WHO SHALL HAVE THE PRIZE?

There was once to be a meeting of the flowers, and the judge was to award a prize to the one pronounced the most beautiful.

"Who shall have the prize?" said the rose, stalking forth in all the consciousness of beauty, "Who shall have the prize?" said the other flowers, advancing each with conscious pride, and each imagining it would be herself. "I will take a peep at these beauties," thought the violet as she lay in her humble bed, not presuming to attend the meeting: "I will see them as they pass." But as she raised her lowly head to peep out of her hiding place, she was observed by the judge, who immediately pronounced her the most beautiful, because the most modest.

CHEESE.

To prevent your cheese having a rancid, nauseous flavour, put one table spoonful of salt to each gallon of milk when taken from the cows in the evening, for the cheese to be made the next day; put the salt at the bottom of the vessel that is to receive the milk. It will increase the curd, and prevent the milk from growing sour or putrid the hottest nights in summer.

THE FARMER.

BALTIMORE, FRIDAY, JAN. 7, 1831.

"My Farm contains six or seven hundred acres of Land."

We have taken the above sentence from a letter before us, making certain enquiries relative to the improvement of the condition of both farm and farmer. It will surprise no judicious farmer to hear, that the writer of the letter is not a subscriber to the American Farmer, when informed, that his farm "contains six or seven hundred acres of land," that he has "procured some orchard grass seed, but is totally ignorant how and when to sow it," and that he wishes to be informed of "a plan for the destruction of sheep burs or ruckle burs." We will venture to suggest that a farm of six or seven hundred acres, unless in the hands of one who at least feels himself "able to spare the money" for a year's subscription to the American Farmer, would eat itself up, owner and overseer, in a very short time. It is one of the wonders of the age, that farmers will not see the immense advantage of cultivating no more land than they can cultivate well. We will venture to assert that one hundred acres of land under a proper system of culture and management would yield a greater nett income than six or seven hundred acres now do under the present practice. We would advise all such farmers to sell or give away four or five hundred acres at least, and put all their energies into action on the remainder. It is true that they may find it necessary to subscribe for the Farmer to get information as to the proper management of such a farm; but if they pursue the advice thence derivable we have no fear that they will long "feel themselves unable to spare the money." As to the advice asked, we have no objection to give a non-subscriber the information required, notwithstanding the intimation that it will reach him through the ungracious medium of borrowing the Farmer from a neighbour, and that he forget to pay the postage of his letter. Orchard grass does best if sown with wheat in the fall, say one and a half to two bushels of seed per acre. Any time in September, October, or November will do for sowing it. It is also sown in the spring with oats, and this is much approved of by some, though not so generally as the fall sowing. As to the best plan for the destruction of burs so injurious to wool growers, we conceive the only successful one to be the pulling up the plants when in blossom. This is effectual with thistles, and would doubtless be so with the bur plant. A thorough pulling up of the plants for one or two seasons would effectually eradicate them.

WHEAT.—The New York Journal of Commerce of Dec. 31 says, that wheat is very much wanted for exportation to England; and that our dry southern article is well calculated to mix with the English in grinding, especially as the latter is this year very ordinary.

DR. MEASE has deposited, in the hall of the Franklin Institute at Philadelphia, an apparatus, imported by him from Florence, for preparing pierced Cocoons for spinning, (with directions for using it,) which will be shown to any person desirous of having a similar one made. We would suggest that the Doctor would serve the cause of the silk culture essentially by publishing a description of the machine with an estimate of its cost, and he is invited to do so through the medium of our columns. Under present circumstances, none but those who live in the immediate vicinity of Philadelphia, can avail of the advantages so patriotically intended to be conferred upon the country by the Doctor.

(From the Philadelphia Inquirer.)

THE JOURNAL OF HEALTH.—We know of no medical periodical either in Europe or in this country, that can be compared, in practical utility, with this. Its directions for the preservation of health, are founded on principles not only conformable to sound theory, but sanctioned and confirmed by authentic experience, and are enforced in a style at once pleasing and convincing. Its conductors are evidently masters of the subjects which they have undertaken to handle. They display a great extent of knowledge and erudition, digested and regulated by the less erratic and more popular qualtities of sound sense and acute discernment. The task they have undertaken is one which could not be well accomplished by either of these qualities alone—their union is requisite. A knowledge of the human frame and of the management necessary for the maintenance of its healthy condition, can be acquired only by a long course of deep study in the different branches of medical education. To impart that knowledge, however, to the public in such a manner as to render it popular and useful, something more than professional learning is necessary. A vigorous understanding that can break from the shackles of technicalities, and the thraldom of systems—or rather a disposition and capacity to subject every system to the touch-stone of common sense, is indispensable for this purpose. But even this is not all. Dexterity and good taste in literary composition, are also wanted. The bare communication of ideas, be they ever so important and valuable, will not answer the purpose of the writer who wishes to become popular and extensively useful—they must be communicated in a manner clear, intelligible and attractive. It is this last quality—this literary charm of perspicuity and freedom from mysticism, which renders the pages of this Journal at once so instructive and delightful, and accounts for the immense popularity which, although but little more than a year in existence, it has already attained. Its circulation, we are informed, approaches to many thousand copies, which carry the invaluable information it contains, to the remotest parts of our Union.

We must not forget to state that the publisher has collected the first twenty-four numbers into a handsome volume, containing nearly four hundred pages. In this volume, some improvements have been made upon the numbers as they were originally issued, the advertisements, lists of agents, &c. having been displaced to make room for matter of more permanent importance. An appropriate frontispiece is also prefixed to the volume. We have perused the work, as it is thus published, and we consider it one of the most useful, and agreeably written family books, with which we are acquainted.

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*Annales de Chim. et de Phys. xxi. 260.

LIVERPOOL MARKETS, *Dec.* 8.

Cotton.—Since the date of our last circular, 25th ult. we have had a fair demand for cotton, with a firm market. American descriptions have commanded rather higher prices, particularly good qualities of Upland, which have been most in request, while Brazils scarcely maintain their former value. For the last day or two, however, the demand has been less spirited, which is attributed to some apprehension of a "turn uut" of a portion of the operative spinners near Manchester. The sales for the week ended 3rd inst. (including 3000 bales of S. Island and E. India by auction amounted to 17,480 bales, of which 6270 were Upland at 6¼ to 7½, with 30 at 7¾; 1700 Orleans, at 6½ to 8d; 2430 Alabama and Mobile, at 6 to 7 3-8; 970 S. Island, at 12¼ to 17½, and 290 stained, at 6½ to 9¾ per lb. The S. Island sale was well attended, and common qualities sold at former rates, but fine at a further decline of ½ per lb. The import of cotton into Liverpool since 1st Jan. amount to 730,000 bales, against 626,000 to same period last year. In the supply from the United States there is an increase of 116,000 bales.

Grain.—Our corn markets have continued to improve, owing to the more general conviction that the late crop of wheat will prove greatly deficient, which becomes daily more evident from the diminished yield in comparison with former years. Bonded flour has been sold to some extent at 30s. to 31s. per bbl. and the supply being at present small, it is held at 32s. Free flour is rather higher and may be quoted 37s to 39s. but does not go off in quantity. The last weekly average of wheat was 64s 8d, making the aggregate 63s which fixes the duty on wheat 23s 8d per qr., and on flour 14s 2¾d. per bl. The dnty on Indian corn is reduced to 6s 4d per qr. The last sale of American wheat in bond prime quality would now probably bring 8s 3d a 8s 6d per 70lbs.

"Clover seed is in good demand; the only parcel recently arrived from America consisted of a few casks of fair quality, which has sold at 84s per cwt. No arrivals yet of flaxseed.—The supply of turpentine having latterly been limited, has caused some further advance in that article, and some parcels of middling to prime quality have sold at 11s 9d to 12s 3d per cwt. No change in tar. The tobacco market is steady, and leaf in fair demand."

Another letter, same date,—Ashes, the sales were 158 brls of Montreal pot at 33s 6d to 34s, and of pearl 85 at 38 to 41s per cwt.

HAVRE, *Nov.* 30.

Our market during the last ten days has been very much depressed, and is likely to remain so for some ime, in consequence of the continuation of uneasiness and distrust, arising from the failures that have occured within a few days at Paris and Rouen; the military movements in the north have also created much anxiety; business is quite at a stand and consumers only buy from hand to mouth. Under such circumstances, our sales have naturally been unimportant.

Our statement of cotton exhibits a stock on hand of upwards of 50,000 bales against a stock of 17,000, as the corresponding period of 1829. In U. S. cottons we have an increase of 26,335, and on the other hand a decrease in the outgoings for the last 11 months of 18,633 bales of the same sorts. We understand that there has been great embarrassments in the manufacturing districts, and there is no doubt that our consumption of cotton has experienced a considerable check within the last two or three months.

Prices Current in Boston, Dec. 31.

Apples, new, bbl. 1.38 a 1.50. *Beans*, white, bushel, .90 a 1.00. *Beef*, mess, bbl. 8.50 a 8.75; cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 5.50 a 5.75; Genesee, 5.37 a 5.62; Rye, best, 3.50 a 3.75. *Grain*, Corn, bu. .66 a 68; Rye, .75 a .80; Barley .62 a .69; Oats 36 a 38. *Hogs-Lard*, 1st sort new, lb. 9.00 a 10.00; *Pork*, clear, bbl. 16 a 17; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Seeds*, Herd's Grass, bu. 1.75 a 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb. .33 a. 38; White Honeysuckle Clover, 25 a .38; Red do. Northern, 10 a 11; French Sugar Beet —— Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .62 a 65; do. do unwashed, .35 a .42. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .56 *a* .58, do. half blood, .50 *a* .53; do. quarter, 38 *a* 42. Native, washed .52 a .53; Pulled, Lambs', 1st sort, 52. a 55; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 48 *a* 50.

Prices Current in New York, Jan. 1.

Beeswax, yellow .19 a 21. *Cotton*, New Orleans .11¼ a .12½; Upland, .9¼ a .11; Alabama, .10 a 12. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax 12 a 16; *Flax*, American, 7 a 8.-----*Flaxseed*, 7 bush. clean 11.50 a ——— *Flour*, N. York, bbl. 5.75 a ———; Canal .5.75 a 6.00; Balt. Hwd. st. 5.87½ a ——; Rh'd. city mills —— a 6.00; country, 5.75 a ——; Alexand'a, 5.62½ a 5.75; Fredericksburg 5.50 a 5.62½; Petersg. 5.62½ a 5.75; Rye Flour, —— a 3.75; Indian Meal, per bbl. 3.25 a 3.50; per hhd. 14.50 a 14.75. *Grain*, Wheat, North, —— a ——; Vir. .— a ——; Rye, North, 68 a 70; Corn, Yel. Nor. .54 a 63; Barley, — a 78; Oats, South and North, .27 a .36; Peas, white, dry, 7 bu. –. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.00; cargo 4.50 a —— Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 8. a .9; Pork, mess bbl. 13.50 a 14.25; prime 10.00 a 10.50.

TO FARMERS.

N. Spafford's STRAW CUTTERS so generally known in Virginia, are now offered for sale at I. W. Cragg's shop, or Wm. Miller's Foundry, east side of Jones's Falls, opposite the Fish Market. The public are invited to call and see them.

AGRICULTURAL WAREHOUSE AND SEED-STORE.

The Subscriber desires to express his grateful acknowledgments to a generous public, for their liberal patronage,—with assurances, that no exertion on his part shall be wanting, in future, to render his establishment an advantage to the public, which has been considerably increased during the present year. He is the only Agent in the city for Gideon Davis, and has on hand a full assortment of his improved Patent PLOUGHS—the increased demand for which, proves the great perfection to which he has brought that useful implement; and he is at all times prepared to furnish the CASTINGS for said Ploughs, to supply the place of those worn out.

He has also on hand, a variety of Improved PLOUGHS suited to the variety of soils; and left-handed ploughs—together with a general assortment of IMPROVED AGRICULTURAL IMPLEMENTS, and wove wire to suit the various purposes for which that article is used. The Subscriber's Patent CYLINDRICAL STRAW CUTTERS, he believes, have never been surpassed in any country; and desirous to bring them into more general use, he has reduced the price $5.—He will also receive orders for THRESHING MACHINES, constructed on the Spike principle, which he believes the best now in use. Early application should be made by those wishing to procure them for the coming season, as it requires time to procure suitable materials; and as machines of this description built in a hurry seldom give satisfaction; he has one on hand finished.

HORTICULTURAL.

In store, a general assortment of the Messrs. Landreths' GARDEN SEEDS, at wholesale and retail—his whole stock being the growth of 1830.—He can furnish to order from the Messrs. Landreths' extensive Nursery, Fruit and Ornamental TREES, BULBOUS ROOTS, FLOWERS, &c. &c. which would receive careful attention in their selection, packing, &c.

Likewise in store,—Orchard Grass, Herds, Timothy, Clover and Lucern SEEDS.

☞ All communications by mail (post paid) will receive prompt attention. J. S. EASTMAN,

No. 36 West Pratt street, Baltimore, between Hanover and Charles streets.

RUTA BAGA SEED.

The subscriber has received a large quantity of Ruta Baga Seed, raised by a gentleman of Baltimore with particular care, and with a view to inducing a more general cultivation of this vegetable, to which end (if immediately ordered) it will be sold at half the usual wholesale price when 20 pounds or upwards is taken. Price 25 cents a pound.

Also for sale a few bushels of Sunflower seed.

GIDEON B. SMITH.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—We find it impossible to obtain correct quotations of flour and grain. We can hear of no sales of flour from stores. Some of the largest dealers say they will not sell city mill flour for less than $6.00, but we can hear of no purchasers at that or any other price. The wagon price of Howard street has varied from $5.25 to 5.50 since Wednesday morniog, and is yet unsettled. The price of wheat is equally unsettled. We heard of a few sales from stores at the rates quoted, but they are not to be depended upon. There is very little wheat coming in.

TOBACCO.--Seconds, as in quality, 3.00 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 407 hhds. Maryland.

FLOUR—best white wheat family, $6.25 *a* 6.75—super. Howard-street —— *a* ——; city mills, ———Susquehanna, —— *a* ——; CORN MEAL, bbl. 2.25 GRAIN; red wheat, 1.16 *a* ——; white do. 1.17 *a* —— CORN, white, 60 *a* ——- yellow 60 *a* ——-new white 60 *a* .——-yellow — *a* 60--RYE, .60 *a* .——OATS, .30 *a* 31, BEANS, 90 *a* 1.00---PEAS, 50 *a* 60---CLOVER SEED — *a* —. TIMOTHY, 2.00 *a* 2.25-—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, — *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, 62½ FLAXSEED — *a* 1.19--COTTON Va. 10 *a* ——-Lou. 11½ *a* 12½—Alab. .9½ *a* .10—Tenn. .9½ *a* .10—N. Car. .8½ *a* .10½-Upland 11 *a* ——--WHISKEY, hhds 1st p 28½ *a* 29; in bbls 29 *a* 29½—WOOL, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $220 *a* --; Country, dew-rotted, 5. *a* .6c.- lb. water-rotted, .6 *a* 8c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a* .4.37½ Mackerel, No. 1, 6.00, *a* ——--No. 2, 5.25 *a* 5.50--No 3 3.25 *a* 3.50; BACON hams Balt. cured 10c.—Feathers, 34 *a* 35--Plaster Paris, cargo price per ton, 4. 37½ *a* ——ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 35.00 *a* 36.00; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Susquehanna, per ton, 85.00 —Prime Beef on the hoof, 4.50 *a* 5 00--Pork on the hoof 4.50 *a* 4.75——Pine Wood, by the vessel load, 2.00. Oak, 3.25 3.50—Hickory, $4.50 *a* 5.00.

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AGRICULTURE.

(From the Western Tiller.)

HEDGES.

"The beginnings of all things are the most difficult."

Mr. Tiller:—I have for some time intended writing to you on the subject of hedging—but a farmer's life is one of such continued occupation (especially when he has old dead fences to repair) that instead of having the leisure which I have been hoping for, of producing something worthy of your columns, I find myself as distant from it as ever, and am only enabled to write to you *by snatches.* Be pleased therefore to accept of my mite, such as it is, towards the discussion of this question, the agitation of which I cannot but hope will prove beneficial to our farmers.

An attempt which I have made to rear a hedge with honey-locust plants having been mentioned in your paper, I will give you a brief history of it.

Some ten years ago being a new beginner on a farm, where the fences from several causes were difficult to be kept up, I thought of making a hedging experiment, and our common hawthorn was the first material which suggested itself. I was deterred, however, from even gathering the haws in consequence of being told that the experiment had been fairly made in the state of Delaware, with every species of American thorn—and that they had all failed. For some time, therefore, I abandoned all thoughts of the subject, until on visiting a friend in Green township, I observed that he had planted out a hedge of honey-locust along one side of his garden. I resolved to make an essay likewise.—The pods were gathered in the fall and thrown in one corner of my door yard—taking care to select them from low shrubby trees which grew in a bleak and rather barren situation, in the hope that the offspring might in this respect resemble the parent—early in the spring the seed was shelled out, put in a vessel of boiling water, where they remained all night; the next morning most of them were swelled to double their original size, and they were immediately planted in nursery ground previously prepared; those seeds that did not swell were either subjected to the same process or thrown away. It is unnecessary to state, what is now well known, that locust seed of all kinds, prepared in this way vegetate as easily and almost as speedily as Indian corn; while on the contrary if planted in their natural state, they remain in the ground for years without germinating—I had in a few weeks many hundred young seedling honey-locusts. In one or two years after sowing the seed, I planted them out where I intended they should remain, in double rows, the rows 18 inches apart and the plants about 6 inches distant, *crow-foot fashion*, breaking the intervals of one row, with the plants of the other. I have little doubt but that this properly managed would have made an impenetrable hedge—but after it had attained one or two years growth, and just when it wanted fashioning or *splashing*, I unluckily hired an Englishman, who pretended to know every thing about the matter—and I was simple enough to let him have his own way; of course whatever I had done was wrong in his view of the subject. He took up all the plants, and after cutting them off to within four inches of the roots, he replanted them in a single row. This was a fatal error; for if they had remained in double rows, they would, I have no doubt, have made a hedge without any other aid than topping occasionally—whereas, in the single row, they require more care and dressing and have more room to aspire towards their original condition of forest trees; I cannot therefore look upon this, as some of my friends have termed it, a *successful experiment*, but I am still in hopes by judicious topping and by filling up the gaps, to render it impervious.

Although I am fully persuaded that under the hand and guidance of a master-hedger, the honey-locust could be trained into a complete and most formidable hedge, yet I cannot say that I am very partial to it. Its thorns are too dangerous to be near one's house, especially as they are, when old, liable to detach themselves from the bark and drop off. Most other thorns (as those of the Cratagus and Pyrus) are persistent—and if you only *let them alone* you are safe. The three spined honey locust thorn, however, from the peculiarity just mentioned, sometimes gets in your lawful path, and inflicts a wound which is little less venomous than the bite of a copper-head—it is therefore, that I would only recommend the Gleditschia to be planted in some *out-of-the way* part of the farm, which, for this very reason, wants to be more carefully protected, than parts frequently visited—and if set out along some steep ravine, where its roots will never be approached by the plough, so much the better; in short I consider the honey-locust as a faithful and well armed protector—but on account of some of its qualities I would prefer posting it on the frontiers of my estate, to retaining it near my habitation and around my favorite field; as our generals assign to a tribe of reckless savages, however *friendly*, a station without the encampment of their trusty regulars.

I come now to speak of other materials, concerning all of which it may be said, that although a great deal depends upon the nature of the plant (and some are certainly better than others) yet more I think is involved in the handling and experience of the grower—since there is hardly any shrub out of which a good hedge may not be formed, with care and attention—while we are choosing, however, let us take the best, and the handsomest too, we can find. These I consider in the following order.

1st. Red-cedar, Hemlock, Yew and many other of the coniferous evergreens which have the requisite capabilities.

2d. Holly, Box, or any other species of arborescent evergreens, not included in the first class, which will answer the purpose. I place these evergreens at the top of the list, because they will certainly thrive in our climate, as can be proved by facts—2d, with proper training they will form as impervious hedges as any other material—3d, on account of the shelter which their dense foliage affords to stock, to say nothing of the greater fertility of sheltered lands. And last, though not least, because of the unrivalled beauty and richness of their appearance at all seasons of the year, but especially in the gloom and nakedness of winter—and especially too on account of the absence of all sorts of evergreens in this county; for I do believe there are fewer indigenous evergreens in Hamilton county than in any part of the Union.—Indeed there are positively *none*. For which reason I place in the next rank, especially for ornamental hedges—

3rd. The Pyracantha, Eglantine or Sweet-briar, Barberry, Privet and other sub-evergreens that will answer this purpose—and from the orange-like beauty of its leaves and its golden fruit (although it be deciduous) we will here place the Maclura, or Osage Orange.

4th. The Hawthorn—the prince, perhaps, of hedging plants, if properly nurtured. In the first place let us try the real English Hawthorn—"the Milk-white thorn that scents the evening gale." I am unwilling to give up without a struggle this beautiful and useful tree, associated in the memory with so many ties of fancy and of fact—notwithstanding the opinion of Mr. H. (and I have the highest regard for it) I still am inclined to give this plant another trial. He had his *plants* themselves brought from England—I would import the seeds only. By vegetating in our soil they will more probably become acclimated and do well—I have a few seedling plants of this tree growing in my yard, where no attention has been given them, their roots being bound up in an impervious fold of green-sward—yet they grow and flourish, and by the fantastic *kimboing* of their limbs, seem to say to every passenger, we are the fellows for your hedge. The United States should import yearly, for several years to come, at least 100 barrels of Hawthorns from England, and distribute them all over the Union The cost would not be equal to half a dozen speeches of a long winded demagogue in Congress. But if we cannot get these (for love or money) let us at least make a trial of our native Cratœgi. There is a species growing on the banks of Mad river which I think a proper subject for experimenting on.

5th. The white mulberry, for internal hedges, not much exposed to cattle and near a house, for the purpose of feeding silk-worms. With the buck thorn I am unacquainted—I think it is an evergreen. The Sloe or Black thorn (Prunus Spinosa) is also mentioned as a hedge plant by English writers; this is a very different thing from our Black-haw (a Vibernum) with which it is sometimes confounded. There are indeed so many shrubs and trees answering to our wants in this particular, that we must confine ourselves to some limits in enumerating them.—McMahon, besides most of the above mentioned, speaks of apple hedges, of hedges of Horn-beam and Beech, Elm and Lombardy-Poplar, Juniper, Elder, Willow and Alder hedges—indeed a hedge *can* be made out of almost any ligneous and branching shrub. The last of all trees that I should think of making use of is our common Papaw (Porcelia of Nuttall, formerly annova tuloba) yet have I seen, planted by the hand of nature,* an impenetrable hedge of several yards in length of this plant. There is one of our native trees, however, eminently well calculated for hedging, which I have omitted mentioning—our wild Crab Apple, to wit: this, if I understand some late articles in the Tiller, is preferred by Mr. H. to the English Hawthorn—I have indeed always thought well of it, and its blossom (though shortlived) is most beautiful and diffuses a paradisiacal odour—but the difficulty of growing it from the seed has foiled my several trials—and this reminds me of another part of my subject about which I intend to say something, viz: the production or re-production of hedging plants from the seed or otherwise.

It is obviously manifest, that however excellent and proper a tree or shrub may be for the purpose before us, it will be useless unless plants after its kind can be re-produced, without too much trouble—for a hedger wants not one or a dozen, but thousands of plants, and many millions are required where a whole country is thus inclosed. So spell-bound are we all by habits of indolence and custom, that much difficulty in attaining any thing new, is always construed into an impossibility. The inconvenience is, to be lamented, but it is unfortunately the case that, with the exception of honey-locust and some others, almost all the plants before mentioned, are somewhat difficult to grow from the seed.—Notwithstanding the ease with which Col. Taylor, the author of Arator, says it may be effected, I have never been able to get a red cedar berry, or indeed the seed of any coniferous evergreen, to vegetate. The experiments, however, which I have made, I am happy to think were with seed somewhat imperfect, or too old. The berries of the holly, the haws of the thorn, and all hard and *flinty* seeds of herbaceous plants, require patience and preparatory processes, before it is worth while to sow them. The simplest and least troublesome mode, is that recommended by your excellent correspondent Calvin. But what has surprised and mortified me most, is that I have never been able to make the apparently ripe and perfect seeds of our wild crab apple to vegetate. Does the unbearable acidity of the fruit, destroy the vegetating principle? Are the apples not yet ripe, even late in the fall, when I have gathered them? Or even after dropping themselves from the tree, do these harsh pomes require yet more time to mature their seed?

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* I have also seen natural hedges of the honey-locust, in old ground, not at all inclining to aspire into forest trees. "Should any one interrogate nature *how* she works? if graciously she vouchsafe to answer, she will say, it behooves thee to go along with me in silence, even as I am silent, and work without words." This answer from Plotinus is the only one I am now prepared to give to your valuable correspondent Calvin, who objects to honey-locust as a hedging plant, because it is a forest tree—an objection to which I can by no means assent.

I know of no objection which can be made to the crab apple, as a hedge plant, unless it be this difficulty of re-production. I will barely mention here, that this too (*pyrus coronaria*) is a *forest tree*, growing to the height of forty feet on the Missouri river, where the honey-locust is a "small tree." See Long's Expedition, v. 1, p. 95.

With regard to the *Maclura*, I am glad it has been mentioned in a New-Harmony paper. It is perhaps in the prairies of the west, devoid of timber, and frequently of stone, that the art of American hedging will first rise to perfection—the native land of the *Maclura Aurantiaca*, Osage Orange, yellow-wood, or bow-wood, (for it is known by all these names in the Arkansas country.) It withstands our severest winters, and is not affected by the aridity of the summers. This tree belongs to what the botanists call the dioecious class—that is, the male blossoms are on one tree and the female on another; consequently, to grow it with the wish of obtaining the fruit and seed, you must be possessed of both male and female trees. A zealous experimenter could, I should suppose, with no great difficulty, obtain from the lower country an abundant supply.—All difficulty with regard to propagating it (and having both male and female plants together) is removed, if it be true that it will grow from cuttings, as asserted by the correspondent above mentioned. When I first read this statement, I doubted it much, from the general appearance of a solitary bachelor plant which I have in my garden; on reflection, however, I remembered that the habits of the *Maclura* ought to be known better at *New-Harmony* than at any other place, and am inclined to hope the writer of the article is correct.

But I must close this communication, and in doing so heartily join with Calvin, in urging the importance of gathering seeds of different kinds proper for this purpose, (now is the time) and planting them as soon as prepared.

The Dutch erected a monument to the memory of an obscure man of the name of Beukels, for discovering the mode of curing and barrelling herring, which is said to have "contributed more perhaps than any thing else to increase the maritime power and wealth of Holland;" that individual would deserve as much from Ohio, who would show us how to inclose our fields, so that if *wealth* was not the result, peace and comfort, and "leisure to be good," might be ours. Yours, respectfully, J. C. S.

MAIZE, &c.

Norwich, Chenango C. N. Y.
January 1, 1831.

Mr. Smith:

Dear Sir,—In No. 18, vol. 12, of your publication, there is an extract from Lorain's Husbandry, containing observations and remarks upon Judge Peters's practice in his fallow crops of maize, grown in 1808, and the cultivation of the crops following it. As I am convinced by the general reasoning of the writer, of the propriety of the course recommended by him, in the treatment of sward land, yet as some parts of the author's ideas seem to me to be distantly and reservedly expressed, I would apply to yourself, or some of your numerous correspondents for information. Especially would I do this, as from the manner of the author it would appear to me, that he has left the subject in some part obscure, generally, so that the information desired would not be useful to me only, but would perhaps be very desirable to many of your readers beside myself, as the subject on which the author treats is interesting and important to every farmer. In the fifth paragraph in your extract, he says, "the field (of Judge Peters,) now under consideration was ploughed five times, and very frequently harrowed before the peas were sown —whereas one ploughing with the remainder done by the hoe and tined harrow, would have executed the whole much better." In his particular observations following, he advises that corn should be planted on the sward, manured and turned over without any subsequent ploughing, and "that the garlic and other pests, together with the roots and tops of the grasses, be kept under and properly used within the soil." He advises that spring wheat, barley or oats, should be sown after the corn crop, together with red clover seed. In speaking of the cultivation for the spring crop, he calls it the "superficial cultivation for the spring crop," and the "superficial preparation of the soil." In paragraph ninth, he advises that the sod should not be turned up either in the cultivation of the fallow crop or in the cultivation of the small grain following it. Upon this I would request information as to the following points.

1. Does the author mean by saying, "that one ploughing, and the remainder done by the hoe and tined harrow," and by the expressions "superficial cultivation," and "superficial preparation of the ground," and by advising that the sod should not be turned up either in the cultivation of the fallow crop or in the cultivation of the small grain following it, that nothing but the tined harrow should be used either in the cultivation of the fallow crop or in preparing the ground for the after crop?

2. If not how could one ploughing, and the remainder done by the hoe and tined harrow, be sufficient for effecting the author's purpose, or if the plough be used in the after crop, would it not, to be used effectually, turn up the sod against which he protests?

To me it evidently appears that he intended to advise that the tined harrow alone should be used in getting in the after crop, yet how this could be done effectually on a surface pressed down and compacted by the superincumbent snow, and by the action of the frost during winter, and the thawing and heat of the sun in spring, as are the loamy intervale lands of this country, and rendered uneven by the corn-hills, and obstructed by the stumps of the cornstalks, I am unable to explain. I hope the attention of some of your practical and intelligent correspondents may be excited by these few remarks, that some light may be thrown upon a subject which appears dark to, yours, respectfully, Anth. Lamb, Jr.

(From the New York Farmer.)

Method of Improving Land for Wheat crops, on light soils, in the Western sections of the State of New York.

Mr. Editor.—Sir,—Having read many excellent articles in your valuable paper, upon the subject of the management of farms, manuring lands, and also many proposed plans for the accumulation of manures, most of which, no doubt, would have the desired effect, if put in practice, *in many parts* of our country. But as most of the plans proposed, require quite an amount of capital invested for their support, they will be found by the generality of farmers to be beyond their reach; consequently, will not be likely to receive the attention of but a small proportion of that class whose means are limited, as is the case, particularly in this section.

Situated as we are in a section of the country, at a distance from a general market, and upon a soil that is adapted to the growing of wheat and stock, the attention of our farmers is pretty much drawn to the raising of those articles, and experience has proved that the greatest profits are realized when they are connected. In pursuing the above object, the following plan has been adopted by some of our most thriving farmers. Should you deem it worthy of a place in your paper, I should be pleased to have it presented to the public, in hopes that some one better acquainted with the subject, may be induced to examine and elucidate the practicability of the plan.

The husbandman first divides his farm into fields, so as to enable him to plough a certain proportion for a wheat crop, while the residue is occupied as pasture and meadow for the support of the stock. That which is intended for wheat, is ploughed in the month of June, as deep as the plough can be made to run, and do the work well, after which it remains until the middle of August, when it is thoroughly harrowed and cross ploughed, by which time the sod is pretty much rotted. As the season for sowing approaches, it is again harrowed, and ploughed the third time, but not so deep as the first or second. This ploughing completely incorporates the decayed vegetable substances with the soil, and fits the ground for the seed; which is sown between the tenth and twenty-fifth of September, as near as circumstances will allow. The following spring, are sown upon the same ground from five to seven pounds of clean clover seed per acre, which stocks it well with grass, and furnishes considerable pasture in the fall after the wheat is taken off. The second season, another portion is managed the same way. The third the same. The fourth, the field first sown, will be the one designed for the plough again. By this time, the clover (it being the second year from seeding,) will have attained its greatest perfection, if it has not been pastured too close the preceding year, and will come forward rapidly in the spring. Not a hoof should be allowed to feed upon it this season, as it is intended that the field shall produce a crop by the time that it will be necessary to plough, that will serve as a coat of manure, which will be between the tenth of June and first of July, by which time the clover will have attained as great a growth as can be turned under by the plough, and will furnish a coat of manure, that will make as much difference in favor of the following crop over the first, on the same ground, as twenty-five loads per acre of the best yard manure at least, and certainly is not attended with one quarter the expense, as the clover seed and sowing are all the extra charge that can be attached to it, and which will not exceed one dollar per acre. Where this course has been pursued, particularly upon light land, the result uniformly is, that the second crop will be nearly or quite double that of the first, and the longer practised, the stronger the land, and the heavier the crop both of wheat and grass. By this course, the wheat lands, with the aid of the manure deposited by the stock pastured upon them during the summer, are made to support themselves, and leave the manure accumulated in the barn yard during the winter season, to be applied upon lands designed for summer crops, or such crops as will not allow time for the above course to be pursued; such as corn, potatoes, oats, &c., which every farmer is under the necessity of raising for his own consumption, and will be found to require all the manure that can be accumulated in the ordinary way from the yard. The above method of making land manure itself, however, is peculiarly adapted to the culture of wheat, as it is a crop that will not thrive well, if sown upon poor ground, the same season that a crop has been taken off, even if it be highly manured from the yard, before sowing each time. But if stocked with clover, and allowed to remain in pasture for one or two years, the effect of the first crop will be entirely eradicated, and the ground improved, and will produce alternate crops of wheat and grass, in which the cultivator will find a handsome profit for his labor, and his land, (which is the farmer's capital,) will also increase in value. W.

Middlesex, Dec. 1st. 1830.

Blame no man for what he cannot help. We must not expect of the dial to tell us the hour after the sun is set.

SIMPLE METHOD OF DESTROYING THE HESSIAN FLY.

As the wheat crop this season has, in some places, suffered considerable damage from the destructive effects of this insect, we are happy to be enabled, by a valuable and obliging correspondent, to publish the following directions for destroying it.

The Hessian fly deposits its eggs on the wheat ear before it is reaped; the egg is so small as to be invisible to the naked eye, but may be very distinctly seen with a microscope; sometimes one grain of wheat will be observed to have several of these eggs on it. They are attached to the wheat by a glutinous substance, deposited around them by the parent fly, by which they are held so firmly on the surface, as not to be easily removed by the motion of reaping, threshing, &c. Shortly after the seeds begin to germinate in the soil, the genial heat of the season brings the young fly from its egg, in the form of a very small maggot, (as is the case with all insects:) these little maggots deposit themselves at the root of the stalk to the seed of which the eggs have been attached; between the stem and the lowest blade or leaf, where they may be discovered during the month of May quietly reposing. Here they remain until the warmth of the season brings them to maturity, when they commence eating the substance to which they have been attached. It is not until this period that their destructive effects are visible, by the wheat becoming withered or blighted. This accounts for the fact that wheat, which is attacked by this destructive insect, presents a healthful appearance in the month of June, the period at which the embryo-fly begins to use food.

Now it is evident that if the eggs of this fly can be destroyed on the seed wheat, by any process that will not also destroy the vegetable quality of the grain, the ruinous effects will be avoided. This can be done by the following very simple process—"soak the seed wheat in water for twelve hours; spread it out on the barn floor, so as to allow the superabundant water to escape; then take fresh slaked lime and mix it among the wheat in quantity sufficient to have every grain covered with the lime, taking care to stir the wheat well with a shovel, so that no particle may escape coming in full contact with the lime, which when thus applied, will in a short time destroy the eggs, and consequently preserve the grain from destruction."

Our correspondent assures us that the egg, which before the application of the lime appears clear and transparent, afterwards becomes opaque, and puts on the appearance of an addled egg. The efficacy of the above remedy has been established by several experiments, one of which we will here relate. Wheat supposed to be infested by the Hessian fly, was taken, one half of the quantity treated with lime, and the other half was sown in the same soil with the prepared, in alternate drills; the result was that every stalk from the prepared seed came to maturity and was productive, whilst the alternate drills which had been sown with unprepared seed, were almost totally destroyed.—*Canadian Courier.*

LARGE HOGS.

A dead hog 20 months old was carried through Warren last week, which weighed no less than 712 pounds, and was bought by Mr. Benjamin Hall of Bristol. The animal was bred in Swanzey, by Mr. Richard Leisure, and may fairly excite the emulation of all growers of pork, in the flourishing county of which Swanzey is a part.—*N. E. Farmer.*

LARGE HEIFER.

Moses Smith, of Flatbush Hill, is now fatting a three years old heifer, which is supposed to be the largest ever fatted in this county. She weighs 1829 pounds.—*Brooklyn Adv.*

HARVESTING.

A general rule, as it regards wheat and rye, is that the earlier each is harvested, and before the grain has become hard, the whiter will be the flour and the thinner the skin of the grain; but the whole weight of the product will be a little less, than if the grain be harvested later. Probably all that is gained by late harvesting is an addition to the skin of the grain.

When a severe blight or rust has struck wheat or rye, it should be cut immediately, even if the grain be in a milky state; and it should lie on the ground, but not so close as to injure the heads, until such time as the stocks have become dry and the grain somewhat hardened. Then it ought to be bound up and put in shocks, and carted in as soon as it is sufficiently dry.—The later wheat and rye are cut, however, the easier it will thresh; but at the same time, there is greater waste by the shelling of the grain, in harvesting and carting in.—*Western Int.*

HORTICULTURE.

(From the Western Agriculturist, a work recently published at Cincinnati, Ohio.)

SILK CULTURE.

For the following valuable essay upon the culture of silk, we are indebted to J. C. Short, Esq. of this county, who was among the first in the West, to engage in this important branch of domestic industry. His views upon the subject have not been drawn alone from books, but are the result principally of practical experience and observation, and therefore entitled to the more weight.

"Evidences are not wanting, that the culture of silk was an object of attention in the earliest ages of which we have any record. The "vestures of *fine linen*," with which Pharaoh caused Joseph to be arrayed, by another version of the text, are supposed to have been fabrics of *silk*—and indeed, this latter word itself, is frequently to be found in the sacred writings. The art of producing and manufacturing this material, however, was for many centuries confined to the eastern portion of the globe, the cradle of the human race, since very rarely is mention made of silk in the Greek or Roman authors which have come down to us, and when used, the term appears to be convertible, as meaning muslin, or garments of cotton stuff. In the inimitable Georgics of Virgil, a poem universally acknowledged to be among the very few specimens of perfect composition in any language, undertaken by the advice and patronage of Mæcenas, and written expressly to revive the drooping state of Italian agriculture, not a word is to be found in reference to the subject before us. Since that time, silk has become the almost only staple of Italy, and the silence of Virgil can only be attributed to his ignorance of the art, since the climate of his country, although much colder then than at present, was doubtless suited to the growth of the mulberry, the only necessary concomitant of the silk worm.

Not to investigate, however, the history of the subject, which is foreign to the design of this work, it is enough to say, that silken goods have always been esteemed as synonymous with wealth, and at the present day enter so largely into the list of the consumable materials of all civilized and even semi-barbarous nations, as almost to be considered articles of necessity. The more a nation advances in riches and civilization, the greater will be the demand for this article. It is one from which no superabundance is ever to be feared. Under these circumstances, it may be asked, why has so little attention been paid to this branch of industry in the United States, as no climate in the world is superior to ours for the rearing of the silk worm and the growing of the mulberry? The question we presume can easily be answered. It was ascertained by the British government, before the revolution which separated the states from the parent country, that our climate was admirably adapted to the growth of silk, and it has been said by an intelligent foreigner, that there is no doubt, had it not been for that revolution, such encouragement would have been given by Great Britain, as to have made raw silk the most valuable of our exports. That event, however, with all its attendant political blessings, gave a new direction to the enterprizing habits of our people; and the settlement of new states and territories, the clearing away of impenetrable forests, and the various other cares and avocations calling upon the time and labour of a rising nation, have prevented these states from profiting by their many internal resources; add to which, that during many years of this period, the wars and tumults of the old world created for other articles, of easier production, a demand as great as we could supply. Lately, however, by the stagnated depreciation of our bread stuffs, and in consequence of the alarming superiority in amount of the imports over the exports of the nation, the attention of the country has been awakened to this important object, and it is hoped, under happier auspices, that silk will become at least as valuable an article of production to the middle states, as cotton is to the southern. But it nevertheless still remains a subject of astonishment, considering, that of all articles of export, none can be superior to silken yarns, in the certainty of permanent market from the European manufacturers, that greater exertions have not been made both by the government and enterprizing individuals, to possess themselves of the art of properly reeling the silk from the cocoons—the most difficult process of the business.

We proceed to give a succinct account of the silk worm, and of the simple mode of treating it, from its birth to the production of the *cocoon*.

In insects of the papilionaceous, or butterfly tribe, (such is the silk worm) the different sexes are distinct, as in the ordinary course of animal nature; but they differ from most other parts of creation, by the metamorphoses, or corporeal changes of shape and appearance which they are destined to undergo, and which consists in an alteration of structure observed during their *generally* short period of existence. The egg contains the rudiments of the insect, and from it, by exposure to a certain temperature merely, in most cases, is hatched the *larva* or caterpillar. While in this stage of being, the silk worm and some other insects, cast their coat several times, as it increases in size. In this *larva,* caterpillar or *wormy* state, with the exception of a few days of repose, at different intervals, "its first great ruling passion is to eat," and this voracious propensity is the cause of the alarming destruction made by many insects, at this period of their lives, as in the well known instance of the *army worm.* In the caterpillar state, the insect exists during different periods, according to its kind, and feeds on different substances. The silk worm, for instance, is hatched from the egg as early in the spring as the mulberry (its natural food) puts forth its leaves, and is supported by these leaves during the most succulent and nourishing stage of their existence. After living but to eat, for a certain period, the insect changes into a *pupa,* spins, and becomes surrounded by its web, which is termed the *chrysalis,* and in the case of the silk worm, it is called *cocoon,* which, on being wound off, is the raw silk. In some other species of insects, the chrysalis is formed of a hard, impervious coat, scarcely to be penetrated by the sharpest instrument, or to be acted on by the most corrosive liquid. Extraordinary instances are related of the length of time some species of insects will remain alive in the pupa state. There is a kind of grasshopper, commonly called a *locust* in this country, described by naturalists as coming regularly once in seventeen years, and is named *Tettigonia Septendecen,* from that circumstance. But a more extraordinary account is published by Mr. Marsham, in the transactions of the Linnæan Society of London, of an insect which was known to have existed in a deal board, that had been converted into a writing desk in Guildhall. The length of time it had been enclosed therein was uncertain; but it is a known fact, that it must have been there upwards of forty years. It is moreover a curious circumstance, that its kind was never noticed in England before, and that it was a native of China, but is also found in Norway, and from the latter country, it is probable, the timber in which it was enclosed, was imported.

When the insect has escaped from this imprisonment, in which it remains for such different periods, it then becomes a butterfly, and is fitted to fulfil the principal functions to which all nature is devoted, the re-production of the species.

A most remarkable characteristic of the silk worm, is its domestic and stationary habits, evidently illustrative of the intention of its creation—for the use and comfort of man. On the first hatching of the egg, the feeble insect evinces not the least disposition to crawl away. It adheres to its native spot, as if it were circumscribed in a cage, rambling about only a few inches in circumference in search of food. If this is not found in that little space, the enterprize and annoying habits of many other insects, in quest of the first want of animal existence, is not visible in the silk worm. It perishes immediately, if not sustained by the fostering care of man.—This absence of all erratic disposition, or inclination to stray off, (for they are continually in motion, except during their periodical sleep) is manifest in every stage of their being.—They will remain perfectly contented on a plain surface, unfortified by the slightest barrier; but as in this case, they are liable to *fall off*, it is prudent to have the boundaries of their domicil a little elevated. When emerging from the cocoon in the form of a butterfly, this habit is still more remarkable. They then are furnished with wings, but have no disposition to use them as auxiliaries to flight, as so many other of the insect tribe do. In fact, their wings appear designedly made too weak to bear the weight of their bodies, and the female rarely appears to use them at all.

The vernal season of the year having become settled, and the white mulberry tree in leaf, (the leaves not having yet attained the size of a six cent piece,) it is necessary to expose the eggs to the mild temperature of the air in a room, and in a situation secure from ants, mice, or any other enemy. Should the mulberry tree be backward, as it sometimes is, in putting forth its leaves, the eggs of the silk worm must be kept in a cold cellar or ice-house, to prevent premature hatching—for the absurd practice of feeding the young worms on lettuce leaves, or any other succedaneum for the mulberry, cannot be to much deprecated and shunned. Those various other articles of food, which we are every now and then told of through the medium of the newspapers, as new discoveries, and as answering the purpose of fabricating silk as well as the mulberry, it will be prudent for the young silk grower to disregard. Such experiments come more properly within the sphere of the natural philosopher than of the practical farmer. A few days after the exposure just directed the nits or eggs will be hatched, and offer to the view small worms or caterpillars not larger than little ants. In proportion as they appear, single leaves of the mulberry strewed on paper, will attract the feeble animals: these leaves covered with worms must be spread on tables or boards. Care must be taken not to heap one on top of the other: *the thinner spread the better*. For a few thousand worms, and we would always recommend a young beginner not to undertake too many on his first trial, a few boards, shelves or old tables (always minding to have and to keep them perfectly clean) will suffice. The capitalist who intends going extensively into this business, will be under the necessity of employing a carpenter, and of making more extensive arrangements. As it is for farmers principally that our work is compiled, we think it unnecessary to detail any expensive apparatus for the rearing of worms. After managing a few for the first year, his own intelligence will suggest to him plans for raising as large a crop as he can manage. One of our country friends assures us, that he raised many thousand worms a few years ago, in an empty lathed corn crib—having however in this case, to guard against the depredations of small birds as well as ants. In proportion as the worms advance in size, the quantity of leaves to be increased—and as cleanliness is the best means for preventing disease among them, and is indeed an indispensable requisite in the business, whether the health of the worms, the quantity and quality of their silk, or the comfort of the attendants be regarded, every third or fourth day it is required that the boards be cleaned of the dirt which the worms make, and of the fragments of leaves not consumed by them. It is hoped that our fair country women who are unacquainted with silk worms will not be frightened at this part of the business. Cleanliness, and an abundant supply of fresh air will take away every thing unpleasant in this pursuit. We once saw a *lady*, rustling in *Gros de Naples*, visit a small collection of silk worms about half grown, from which, at the first glimpse, she turned away in horror and disgust, exclaiming, "Oh, what frightful monsters!" If all the *women* of America were thus fastidious, we might at once bid adieu to all hopes of seeing this a silk-growing country, and to all the golden harvests which we are certain will accrue to the nation, if this branch of industry is not abandoned. The easiest mode of cleaning their habitation is by changing it, that is to have another board or table placed near to the one they occupy, then to take the half eaten leaves to which the animals adhere, and place them on the fresh board. The first one can then be cleansed and aired for after use. With a little practice this will be found no troublesome job. Another mode is to place a table with fresh leaves *adjoining* to the one occupied by the hungry and unfed worms, when they will crawl over to the leaves. This mode does away the necessity of handling them, but will require more time—and, finally, some of the worms perhaps will have to be lifted over to the fresh table.

Much has been said by the different writers on this subject, about the necessity of keeping the worms of different ages, that is, hatchings of each day, separate—to the end that when their periods of sleep arrive, they may all be in the same state of repose. This certainly would be desirable; but the writer of this article, although he has several times attempted to effect this by carefully keeping apart the worms according to the separate days of their birth, has never been so successful as not to have sleepers and feeders mingled together. Nor does he think much inconvenience arises to the animals on this account. But still it is desirable to keep them separate, on the following account. During their short life of about five or six weeks, these animals undergo four changes. They fall into a state of torpor which lasts for two or three days each. During that time the worm, sticking to the leaves with the hinder part of his body, stands with the foremost half erect. Immoveable in this position it seems to sleep, and does not eat. It is therefore said to be necessary, that the greatest care must be paid in keeping separate those of different ages. If this point is neglected, say the old writers, the consequences might be fatal; "for in disturbing the sleepers the silk-grower not only runs the risk of engendering diseases among them, but in cleaning the boards and feeding the hungry ones, he may throw away or smother a number of those in a torpid state, to the manifest injury of his crop.—The best, if not the only way, to prevent this mischief is that of dividing the worms on different boards, at the epoch of their nativity. Let those hatched to-day, not be mixed with the progeny of to-morrow."

After the worms have undergone for the fourth time this state of topor, they fall voraciously to eat. Before this period it was sufficient to feed them two or three times a day: now, however, they must be fed with an unsparing hand. This state of appetite does not last long. It ceases suddenly at the end of a few days. They then abandon the leaves, and ramble in quest of hidden corners, where undisturbed they may spin their cocoons. It is necessary to afford them facilities for this purpose, by affixing to the boards or shelves on which they have been fed small bushes, with strong and persistent leaves, (as of the beach and chestnut) in the recesses of which they ascend, along the erect stem, and with unremitted activity, attached to the branches, build to themselves silky coffins. Out of its cocoon, at the end of ten or fifteen days, the worm breaks forth under the renewed form of a butterfly. The few days the metamorphosed animals have to live, are directed to the perpetuation of their species. The female suffers the male to fœcundate the eggs with which she is filled, lays them wherever she happens to be, and both die afterwards without struggle or apparent suffering. From the cocoons out of which the butterfly has escaped, it has generally been supposed that no silk could be spun. This opinion, however, has been controverted. Some persons maintaining that the animal does not *cut* the thread, so as to interrupt its continuity, but merely *pierces* through its prison-house. These cocoons, however, can certainly be used for various purposes. When real silk of the first quality is intended to be obtained, the balls or cocoons must first be divested of their loose surrounding coat of *tow*, which is carded and spun like cotton. The cocoon then being immersed in boiling water, winds off to the length of from three to five hundred yards. This operation must be done quickly; for, as before said, if delayed too long, the cocoon is pierced by the butterfly, and rendered unfit for the reel. There are however means by which the cocoons may be preserved good and unbroken, until it is convenient to spin them off. This is by killing the *pupa* in the cocoon before it breaks through, which is done either by exposing them to the rays of an intensely hot sun, for several successive days; by putting them in hot ovens, or by a fumigation of brimstone. The latter mode is to be preferred to that of using heated ovens, by which the silk might be scorched. In seasons, however, of hot sunshine, this mode is superior to all others.

Here then with the production of the cocoon, the labour of the *agricultural* silk grower should cease. The other cares of his farm will demand his attention. In the event, however, of the United States becoming a silk-producing country, there will necessarily be established in all the large towns, filatures for the reeling of silk, where the cocoons will be purchased. Private and similar filatures on a small scale, will no doubt also be established throughout the country. But unless there are one or two in each of the states, the raising of this article will not be sufficiently encouraged.*

The unwoven silk threads reeled off from the cocoons, and prepared for the weaver (in which state it is denominated *raw silk*) is the article, to procure which, as it is the most difficult, will be the most profitable part of this business—since an unlimited demand exists for the material in the manufactures of Europe. The ingenuity of our countrymen, no doubt, will be equal to the task of producing this article; but it may be some years first, as repeated attempts may be necessary.

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* See on this subject the report of Chief Justice Spencer to the last Congress, and the learned Mr. Duponceau's admirable letter therein.

The writer, is aware from late remarks in the American Farmer, that such is not the opinion of its Editor—he can only say at present, that, from the nature of things, differences of opinion must arise in all novel undertakings, and it is to be hoped from such discrepancies the true interest of the country may be promoted.

With regard to the cultivation of the mulberry tree, it is thought that little need here be said to those who are at all acquainted, as most of our farmers are, with the management of fruit trees in general—for this is a fruit tree and of a fine kind, although its leaves only are wanted for the silk worm. The mulberry tree here spoken of is the *morus alba*, (the white or Italian mulberry,) which has been found to thrive in our climate with the most lively luxuriance. Of late, as has been observed by the newspapers, another kind has been introduced into the United States from China, (the *morus multicaulis*,) with the qualities and properties of which we do not profess to be acquainted.

To raise the white mulberry from the seed, the first thing necessary is to be certain of obtaining fresh and genuine seed. Sow these early in the spring, in ground well prepared, rich naturally, but not lately manured, in beds four feet wide and crossed by drills at distances of nine or ten inches, in which the seed should be deposited say one or two inches apart, as near as may be. As soon as the young plants appear, be prepared to give them a careful hand-weeding, which will have to be repeated once or twice, before they are large enough to suffer that operation to be performed with a hoe. So soon as that is the case, the trouble is over, for after one or two slight dressings with the hoe, they will take care of themselves, as far as regards culture. If the ground be well adapted to their growth, and the season is favorable, in one year from the planting of these seeds, a great many may be selected large enough to transplant. In two years, they may be all transplanted where they are finally to remain—some very small ones excepted, which can be put into hedge-rows.

It is almost unnecessary to say, that during the whole first period in the existence of the mulberry tree, it must be carefully defended from stock of all kinds. Where they are planted as standards, and have become somewhat large and old, it is presumed and hoped (for as yet we have little experience on this subject in this country) that cattle and sheep will not molest them, although it is feared, that horses addicted to the bad habit of barking trees, will be an enemy to the white mulberry until it becomes an aged tree. It is, however, a most fortunate circumstance, that rabbits do not annoy these plants during their minority.

So much for raising this tree from the seed. Large nurseries have, however, for several years existed throughout the country, from which, no doubt, many of our farmers have already supplied themselves. If not, it is earnestly recommended to all persons owning farms, whether they have any disposition to cultivate the silk business or not, to plant out on their premises, some white mulberry trees. They will answer the purposes of shade and ornament, fruit and timber, as well as any other trees, and add, at some future period, to the general wealth of the country. The mulberry can be planted out orchard like, in rows along permanent fences, or in hedges. The following is also a mode of making plantations of this tree, practised in India, which appears to possess some advantages for gathering the leaves, especially where children are employed in that business. "In India, the mulberry is cultivated in a different manner from what it is in Europe. It is raised from cuttings, eight or ten of which are planted together in one pit, and the pits are distributed over the field, at the distance of two or three feet every way. These cuttings being well firmed at the lower end, soon form stools about the height of a raspberry bush, and from these the leaves are gathered. The stools are cut over once a year, to encourage the production of vigorous shoots from the roots." As cuttings are spoken of in the above extract, it may not be improper to observe, that if these be taken from young seedling trees, they will thrive and take root with as much facility as those of the willow tribe; whereas, much disappointment has been occasioned by endeavours to raise the mulberry from cuttings taken from old trees.

We cannot dismiss the subject without a passing observation on arboriculture in general, and without again and again entreating our country readers, and indeed all who have the command even of an acre of land, to appropriate a part of their possessions, no matter how small, in raising forest trees of all kinds, native and exotic, from the seed. The axe is making daily havoc among our woods. The growth of a century is prostrated in an hour, and if no means are taken to procure another generation of trees, the land will become denuded and arid in proportion to its nakedness. The man who raises a cabbage or potato, does well, inasmuch as he adds to the means of subsistence of the present race around him; but however successful his efforts, their effects perish with the passing year—while he who grows an oak, leaves when he dies, this single monument at least, to say that he *has not lived in vain.*

Promenade, &c. in the Caledonian Horticultural Society's Experimental Garden, at Iverleith, July 10.

The garden is about ten English acres in extent, and commands from every part a superb view of the city. It is divided into compartments suited to the different kinds of plants raised in it; the chief of these apartments being the aboretum, the orchard, the nursery, the hot houses and stoves, and the kitchen garden. The arboretum is formed of the numerous species and varieties of trees and shrubs, and extends round nearly three sides of the garden, besides intersecting it in the form of two raised belts. The orchard contains upwards of 600 sorts of apples, collected with great care, and at considerable expense, and many new seedling varieties. The pears amount to 350 sorts, the plums to 100 sorts, the cherries to 80 sorts, and the filberts to about 10 sorts. Of the gooseberries there are 350 varieties; and the distinct kinds of strawberries are about 100. The nursery is filled with fruit and forest trees and shrubs, in various stages of growth, intended chiefly for distribution among its members. The hot-house establishment is not yet complete, but the collection of pine apples amounts to about 20 sorts, and that of grape vines to about 100 sorts. The culinarum, or kitchen garden department, is richly stocked with rare culinary plants and herbs. The whole garden is under the management of Mr. Barnet, and never did we see a place of the kind in better order. Not a weed was to be seen, and, still more marvelous to be told, not a bush appeared deranged, nor a bed furrowed by the deluges which had poured down daily from the weeping skies. The turf walks were shaved so closely, that they seemed to the eye, and felt to the feet like a carpet of velvet.

In the centre of the garden a large tent was erected, supported on pillars gaily festooned with evergreens and flowers. Under this awning two tables were placed, capable of accommodating about 500 people. The tables were profusely covered with all the fruits of the season, interspersed with confections, and beside each cover a nosegay was invitingly deposited. At each end of the tent was an elevated platform, supporting a variety of magnificent exotic plants, the exhibition of which was one of the principal features of the entertainment. The collection was as numerous as many of the specimens were splendid.—*Edinburgh Observer.*

FRUIT TREES.

Fresh lime newly slaked and mixed with water to the consistency of cream, is an excellent dressing for the rind of fruit trees that are injured by moss and insects. When this has been well applied, the insects are destroyed, the moss disappears, the unhealthy rind peels off, and a new one is formed.

RURAL ECONOMY.

(From the New England Farmer.)

POULTRY.

The following easy and economical method of rearing poultry has been communicated to the London Society for the encouragement of arts, &c. by Mrs. D'Oyley, of Sion Hill, over Northallerton, who received the Society's silver medal for the same. Where poultry are reared expressly for the market, this method is certainly deserving of attention.

Mrs. D'Oyley keeps a large stock of poultry, which are regularly fed every morning upon steamed potatoes, chopped small, and at noon upon barley. In the poultry-yard is a small building, like a pigeon house, in which the hens lay, with a frame with nets to slide in before each hole: the building is kept dry, light, and well ventilated; and once a week the floor is strewed with fresh ashes. When she wishes to procure chickens, she sets many hens together, confining each to her respective nest, by drawing the sliding net before the hole; and they are daily let out for air, exercise, and food.

As soon as the chickens are hatched they are taken away, and the hens have a second lot of eggs allowed them, to sit again, by which means they produce as numerous a brood as before.—Mrs. D. puts the chickens in long wicker cages, placed against a hot wall at the back of the kitchen fire, and within them has *artificial mothers* with which the chickens run. These mothers are made of boards, about ten inches wide and fifteen inches long, supported by two legs in the front, four inches in height, and by a board at the back two inches high. The roof and back are lined with lamb skins, dressed with the wool upon them, and the roof is thickly perforated with holes: they have no bottom, but have a flannel curtain in front and at the ends for the chickens to run under, which they apparently do by instinct. The cage is kept dry and clean, either with sand or with moss, and is of a proper size for fifty or sixty newly hatched chickens.

When a week old, they are carried together with their artificial mother to a grass lot, in fine weather, and the mother is kept warm by placing a long narrow tin vessel at the back, filled with hot water, which will retain its heat for three or four hours at a time, and towards evening they are removed back again to the hot wall. When three weeks old, they are put into a cage, which is fitted up with frames similar to the artificial mother, round the floor, and with perches conveniently arranged for them to roost on.

When Mrs. D'Oyley first attempted to rear poultry in this way, she lost several, owing to the roof of the mother not being sufficiently ventilated; and experienced many losses from improper food, until she thought of getting coarse barley meal, and steaming it until it became soft; with which and with minced potatoes, they are fed alternately, and are frequently excited to eat by pellets of dough that are thrown to them.

Upon this the young chickens are stated to grow surprisingly, and soon become fit for the table or the market: and Mrs. D. conceives that her method might be pursued near populous towns with immense profit. A young person, it is stated, of twelve or fourteen years old, might bring up some thousands in a season, for hens may be set four times in the year, and be made to rear two broods at each setting. The proper heat of the wall is eighty degrees of Farenheit's thermometer, and the troughs for the food are placed without side of the cages, from which, to the artificial mother, a small quantity should be littered, in order to point to the trough.

Recipe for keeping eggs—Let the eggs float on lime water, in which a quantity of salt is put.

(From the Western Tiller.)

FATTENING PIGS ON COAL.

Cunningham, in his *Two Years in New South Wales*, relates, "I had often heard it said among sailors that pigs would fatten on coals, and though I had observed them very fond of munching up the coals and cinders that came in their way, still I conceived they might relish them more as a condiment or medicine than as food, till I was assured by a friend of mine, long in command of a ship, that he once knew of a pig being lost for several weeks in a vessel which he commanded, and it was at last found to have tumbled into the coal hole, and there lived all that period without a single morsel of any thing to feed on but coals; on being dragged out it was found as plump and fat as if it had been feasting on the most nutritious food. Another friend told me of a similar case, which came under his observation; and although these may be solitary instances, yet they serve to show the wonderful facility which the stomachs of certain animals possess of adapting their digestive powers to such an extraordinary species of food, and extracting wholesome nourishment therefrom. When we consider coal, however, as a vegetable production, containing the constituent principles of fat, carbon, hydrogen and oxygen, our surprise will decrease."

CIDER.

The New England Farmer relates the following method for improving cider:

"I think that last year I discovered a mode of improving cider, which renders it more wholesome, and enables me to obtain from apples which are without acid, a liquor as free from acid as any kind of wine.

"During the fermentation of cider sherry—though it be vinous, a good deal of acetous acid is, I believe, always generated, making those liquors more or less harsh, that is really acetous.—I mix in each hogshead of 110 gallons, from seven to eight pounds of newly burnt charcoal, finely powdered. This mitigates the fermentation, rendering the liquor black as ink so long as it ferments, but as soon as fermentation ceases, the charcoal is deposited, carrying with it all impurities, and leaving the cider excessively bright. No taste or smell is given to the liquor by the charcoal, that being wholly insoluble."

INTERNAL IMPROVEMENT.

Extracts from Governor Trimble's Message, to the Legislature of Ohio.

"The navigation on the Miami Canal has suffered no serious interruptions during the past season. The tolls received for the last year, ending the 15th November, amount to $49,000: the receipts of the year up to the last of the present month, may be safely estimated at $50,000—giving an increase of fifty per cent. over the receipts of the preceding year. This result is to be attributed to the new impulse given to the industry of the country by this improvement. The same cause must continue to operate favorably; but the ratio of the increasing profits, time only can determine.

"The Northern division of the Ohio Canal, from Cleaveland to Newark, was opened for boats about the 10th of July last, but owing to accidental circumstances incident to new Canals, the navigation was liable to frequent interruptions up to the middle of August, since which time, an active and profitable business has been done upon this line. The tolls received up to the 15th of November, amount to $24,336. The receipt of the whole year, ending on the 31st of December, may be computed at $30,000. The whole amount of tolls arising from our Canals up to the 31st of December, it is believed, will be about $80,000.

"Although the navigation extended no farther south than Newark, the experiments of the season demonstrate the fact, that when the work is completed, a vast amount of merchandise, destined for the western states, will pass through this channel to the Ohio river; and in return a much heavier amount in tonnage of the products of the country will be borne upon its bosom from the Ohio to the Lake.

"The work on the southern division of this Canal has been carried on during the past season, with unusual success. Another year equally favorable for such operations, will enable the contracters to complete it; and as soon the following spring as this section can be filled with water, the commissioners calculate on having the whole line, from the Lake to the Ohio river, prepared for navigation.

"These improvements were commenced in 1825, under circumstances appalling to many of our most intelligent citizens. They have been conducted thus far with persevering industry and an economy seldom witnessed in works of such magnitude. This is creditable to the state, to her officers, agents, artisans, and laborers, who have rendered personal services, and to the community at large, for the constant and liberal support which they have given to the canal policy, and the measures connected with it. We cannot look forward to the result of six years' enterprise and skill, without anticipating the pleasing emotions it will occasion. It will be an interesting event to the citizens of the west, and the pleasure to be derived from it will be increased to the people of Ohio, by the reflection that, however local these important public works may be in their character, their benefits will not be confined to our own territory, or to our own time. They will be as unconfined as the spirit of the age which contributed to the birth of those measures, and pass in reversion to posterity—a rich and unalienable inheritance.

"Believing there is a close and indissoluble union between these and kindred works, whether made by the separate states, or by the nation; that there is a close and immutable alliance between these improvements and the interest of agriculture, manufactures, and commerce; and that the latter cannot prosper, unaided by the protecting influence of the general government—I take this occasion to repeat the expressions of my deep conviction, derived both from reflection and experience, of the necessity of a steady adherence to the American System, and the policy of Internal Improvements. They are both believed to be essential to the prosperity of the cultivators of the soil, and the other laboring classes of the community; and the latter especially, is indispensable to an equal participation by the west in the benefits of the Union. They are both sought to be subverted by a sleepless vigilance and activity, and they can only be maintained by equal perseverance. We saw, with regret, an attack upon both at the last session of Congress; which there is too much reason to fear will be renewed at the present. Nor can I forbear expressing the disapprobation which I share in common with the people of Ohio, of the means which are threatened to be employed by some of the leading politicians of one of the southern states to assail these interests. The right of an individual state to set up its separate will, against the will of the whole Union, and to invalidate the legislative and judicial acts of the general government, is utterly destitute of all color of support, in reason, in the constitution, or in the nature of our free institutions. Whilst attempts have thus been made, sometimes from unexpected quarters, to change the policy of the general government, which had been previously supposed to be finally established, it is a matter of high satisfaction that the delegation from Ohio, in both branches of congress, and without reference to other differences of opinion, have generally adhered with fidelity to those leading national interests."

LIVERPOOL AND MANCHESTER RAIL-WAY.

The rapid motion of the steam-carriages, on the Liverpool and Manchester rail-way, is described with great animation by a writer in Blackwood's Magazine, who says:

"At first it was comparatively slow; but soon we felt that we were indeed going, and then it was that every person to whom the conveyance was new, must have been sensible that the adaptation of locomotive power was establishing a fresh era in the state of society, the final result of which it is impossible to contemplate. On looking over the side, the earth, with its iron stripes on which we shot along, seemed like a vast riband unrolling itself rapidly as we went. At one maximum of speed the people scarcely caught the eye; before the sight was fairly fixed upon them they were far away and lost in the rear. The shouts of joy which greeted those in front, fell in their full gladsomeness on us, who rapidly filled up the intervening space; while those which hailed us as we passed, were destined to be the compliment to others, who, in another instant occupied our place. At times it was difficult to recognize or distinguish the countenances of the long continuous lines of spectators, as they seemed to glide away, like painted figures swiftly drawn through the tubes of a magic lantern. One engine (for what reason I could not exactly ascertain, unless left free to exhibit its unfettered powers) was placed on the corresponding parallel line of rail-way, so that without interruption it could move to and fro at pleasure.—When we were at full speed, its coming was announced; far behind I saw it as a speck in the distance, but, rapidly increasing in size, it became, if I may use the expression, in a few seconds, largely visible, and shot by us, as though we were jogging on quietly in a farmers' market cart. In a trice, having reached the head of the column, it retrograded, and then exhibited what may be termed a frightful display of velocity, compounded not as before, when overtaking us, of our velocity to be deducted, but to be added. There was a loud whiz and a rattling of wheels; I could scarcely discern its form, as it bore down as if to crush all before It—a glance was all—it came and was gone—with a comparative speed (taking ours at twenty, and its own about double) of nearly sixty miles an hour!"

The following extract from the Liverpool (Eng.) Advertiser shows more of the capabilities and advantages of Rail-roads in their proper places.

Extraordinary Performance on the Rail-way.

On Saturday last, the Planet locomotive engine (one of Mr. Stephenson's) took the first load of merchandise which has passed along the Railway from the Liverpool to Manchester. The train consisted of 18 wagons, containing 135 bags and bales of American cotton, 200 barrels flour, 63 sacks oatmeal and 34 sacks of malt, weighing altogether 51 tons, 11 cwt. 1 qr. To this must be added the weight of the wagons and oil cloths, viz. 28 tons, 8 cwt. 3 qrs. the tender, water and fuel, 4 tons, and of 15 persons upon the train, 1 ton, making a total weight of exactly *eighty tons*, exclusive of the engine, about six tons. The journey was performed in 2 hours and 54 minutes, including three stoppages of five minutes each, (only one being necessary under ordinary circumstances) for oiling, watering and taking in fuel, under the disadvantages also of an adverse wind, and of a great additional friction in the wheels and axles, owing to their being entirely new. The train was assisted up the Rainhill inclined plane, by other engines at the rate of nine miles an hour, and descended the Sutton incline at the rate of 16½ miles an hour. The average rate on the other parts of the road, was 12½ miles an hour, the greatest speed on the level being 15½ miles an hour, which was maintained for a mile or two at different periods of the journey. The road we understand will be opened for the general carrying business in the course of a few weeks, when a further supply of engines is expected, the above experiment having been made in the mean time, for the purpose of ascertaining the powers of the present engines, and of removing some doubts which have been most unaccountably entertained as to the practicability of transporting cotton and other bulky articles along the Railway. Taking this performance as a fair criterion, which there is no reason to doubt, for engines of the same class as the Planet, (with the assistance of one large engine, constructed for the purpose, up the inclined plane) would be capable of taking upon the Railway, all the cotton which passes between Liverpool and Manchester.

MISCELLANEOUS.

AN IMPORTANT DISCOVERY.

An interesting paper on the beautiful and brilliant light, produced by the action of oxygen and hydrogen gases upon common lime, was read at the last meeting of the English Royal Society. The chemical action of these gases upon the carbonates, furnishing a variety of singular and beautiful experiments has been long known to the veriest tyro in the science. But the practical application of the light evolved from common lime by the agency of these gases is said to have been first suggested by Lieut. Drummond of the Navy. Its effects were lately exhibited in London in the presence of a large number of distinguished scientific gentlemen of that metropolis. A temporary light-house was erected a few miles below Blackwell, and the light from the lime is said to have been ten times more brilliant than the revolving lights upon the coast. Indeed so powerfully bright was the light emitted that when the revolving shade precluded a direct view, its bare reflection from a neighboring wall was distinctly visible to the spectators at the distance of ten miles. It also exhibited the singular phenomenon of sending its rays across the horizon in a most brilliant and beautiful manner. This appearance and that of the reflection will of course depend upon the state of the atmosphere, as the least haze or moonlight will almost entirely prevent them.

The action of these gases upon a ball of lime about the size of a common playing marble, is said to produce a light so painfully brilliant, as to be even more annoying than gazing upon the meridian sun. The light emitted was found equal to the combined light of 260 wax candles.

This discovery is at present undergoing an examination by the Lords Commissioners of the Admiralty and others—previously to its being practically applied to light-houses. The cheapness of the material, the facility of its management, the uniformity and brilliancy of its light as well as the little danger of its *communicating fire*, would at first view and without any particular examination, seem to recommend it highly for such an application.

[*English paper.*

A friend from Pendleton furnishes us with the following item of sporting intelligence.—A young gentleman in Bath county, Mr. John Williams, recently killed two large bucks, the horns of which were so interlocked that they could not disengage themselves. There is no doubt they had had a combat, and from observations which Mr. W. made, he supposed they had been in this condition for several days. The horns were so securely fastened that he could not separate them without breaking off one of the prongs. The bucks were killed at two shots, and the one which escaped the first ball carried the other about one hundred yards before he met "a leaden death."

[*Staunton (Va.) Spectator.*

BOOKS.

A few drops of perfumed oil will secure libraries from the consuming effects of mouldiness and damp. Russian leather, which is perfumed with the tar of the pitch tree, never moulds: and merchants suffer large bales of this article to lie in the London docks in the most careless manner, knowing that it cannot sustain any injury from damp.

OIL FROM PUMPKINS.

The seeds of pumpkins are commonly thrown away; but abundance of an excellent oil may be extracted from them. When peeled they yield much more oil than an equal quantity of flax. This oil burns well, gives a lively light, and lasts longer than other oils, and emits very little smoke.

A subscriber, who wishes to know how he may ascertain, whether his bushel measure is correct, is informed, that the dimensions of a bushel, by statute, are 8 inches deep, and 18½ inches wide or in diameter. By calculation, it is found that a vessel of these dimensions contains 2150.41 cubic inches. This will afford farmers an opportunity of finding the number of bushels in a bin, without the trouble of taking it out for measurement.—They have only to find the length, breadth, and depth of the grain in inches, as it lies in the bin, and multiply these numbers together, and divide the product by 2150.41; the quotient will be the number of bushels; this rule may be of use to farmers in determining the dimensions of their cribs.

[*A Country paper.*

RECIPES.

CURE OF CORNS.

A correspondent of the Lancet recommends the use of caustic in cases of corns: he says—"I applied it (the lunar caustic) thus:—I put the feet in warm water, and allowed them to remain till I found the outer surface of the corn was soft; I then dried the feet, and applied the caustic all over the corn; in a few minutes it was dry: it remained so for ten days when I removed the black skin, and applied the caustic again: and so I continued, till I had completely eradicated the corns. I have tried the same plan with many of my patients, and those who have been sufferers for years—all have been cured: it produces no pain, nor the least inconvenience, and does away with the necessity of cutting, which is dangerous in itself, and likely to produce extensive inflammation, with, frequently the loss of life."

ANOTHER.

Make a cot of thick soft leather, with a hole in it at the place where the corn is situated; wear it on the toe for a few weeks and the corn will disappear. If the corn be on a part of the foot where a cot cannot be applied, a flat piece of leather with the hole in it, may be bound on. It takes off the pressure of the shoe—thus giving immediate ease,—and deprives the corn of the friction necessary to its existence.

HOW TO DESTROY RATS.

A friend in Salem, Mass. informs us that rats are easily destroyed by sprinkling a little of the powder of Spanish flies on some buttered bread, or other food of which rats are fond, and it will easily destroy them. No! it does not destroy but drives them from the premises. This I know to be the fact, for I have tried it in an old house, much infested with them.

A most effectual way to stop mouse holes. Take a plug of common brown soap, stop the hole with it, and you may rest assured you will have no farther trouble from that quarter—it is equally effectual as regards rats, roaches, and ants.

I have also tried it and know that it has the desired effect. Wm. B. Barney.

THE FARMER.

Baltimore, Friday, Jan. 14, 1831.

Culture of Silk.—Our much respected correspondent, will accept our thanks for his attention in forwarding the pages of the Western Agriculturist, containing the Essay on the Culture of Silk, which will be found in the present number of the Farmer. We publish the essay with pleasure, although it contains little essentially new to those who have attended to the contents of our columns for several years past. We notice it, however, in this place, for the purpose of correcting an error into which its intelligent and respectable author has fallen, relative to the opinion of the Editor of the Farmer on the subject of the establishment of filatures for the purchase of cocoons and reeling silk in the several states. (See note at the bottom of 3d column, p. 348.) The writer is widely mistaken in his supposition that we entertain or have ever expressed an opinion unfavorable to the establishment of filatures in the several states; quite to the contrary. It is presumed that the course of the Editor of the Farmer on the subject of the bill reported in Congress to give forty thousand dollars to an individual for instructing sixty young men in the art of reeling silk, has caused the mistake; if so,—and as it is probable that others may have fallen into the same error,—it is proper that the matter be explained. The Editor's course on that subject is not founded upon the opinion, that filatures in the several states are unnecessary to the success of the silk culture, but upon the full belief that the forty thousand dollars thus proposed to be given would not only not establish those filatures, but would be absolutely thrown away, so far as the public and especially silk cultivators, (except those in the immediate vicinity of Philadelphia,) are concerned. He believes that scholars would not be found in the several states, willing, if able, to devote two seasons of five months each, with the expenses of travelling to and fro and board, &c. in Philadelphia, for any such purpose. He further deems it unjust for government to enable by its funds any individual to establish such a monopoly of the business as the donation in question would do. It would effectually break down and prevent all other establishments, and thus act directly against the establishing of filatures in the several states; for though this school might impart the knowledge, the means of effecting the object must be sought elsewhere; and if the cost of the machinery be so great as to require the forty thousand dollars to establish a filature in Philadelphia, it seems to the Editor that the individual means of the scholars to meet it would be inadequate. The Editor is fully impressed with the belief, that the only efficient mode of encouraging the silk culture is that of bounty on the production of merchantable silk, and the cultivation of mulberry trees. In this all would participate. It would cause the establishment of filatures sooner than any other plan, because these establishments would not only have in view the profits derivable from their labours in the ordinary course of trade, but would be encouraged to go on by the certain knowledge that the government bounty would save them from loss. In the natural course of things, the production of the raw material must precede the establishment of factories.—No capitalist will be so insane as to vest his funds in a factory when there is no raw material to work up, or with the hope of inducing the production of the article. On the other hand it may be safely averred, that the discovery or production of a valuable raw material, has always been and will continue to be followed immediately by a market and machinery to work it into the forms necessary to its practical utility. If we have encouraged the producers of cocoons to reel them themselves, it was that they might be able to make the most of them, until they should be produced in sufficient quantity to authorise the establishment of regular filatures and factories.

Another remark may not be out of place here. There is scarcely a state in the union that could profitably supply a regular filature with cocoons, for want of regular and convenient plantations of white mulberry trees; for it will not do to depend on the scattering trees now existing, much less upon the native mulberry. Is it to be supposed that filatures will be established to encourage the farmers to plant mulberry trees? Would it not rather be more judicious and conformable to common sense, to encourage the plantation of trees, that we might thence ensure a supply of cocoons for the support of filatures? Let government appropriate a fund to be given in bounties for the cultivation of mulberry trees, and for the production of silk, and then we shall see the silk culture efficiently and effectually patronised. As to the filature of Mr. D'Homergue in Philadelphia, there is not a man in the union that wishes it more success than the Editor of the Farmer. To him individually and to his establishment carried on by legitimate means, he is not arrayed in opposition; on the contrary, he would do as much to serve both as he would for any other—the success and prosperity of the cause being the only motive that actuates him. Thus it has been our constant custom, when enquiries have been made for a market for cocoons, to direct them to him; and it was with high gratification that we met with the following article in a Philadelphia paper, furnishing evidence of his success far beyond our most sanguine expectations, and with which we conclude this article:—

(From Poulson's American.)

I was much pleased by seeing this morning, in the Daily Advertiser, an extract of a letter from M. D'Homergue, stating the profits which may be realized from raising cocoons from the silk worm, the knowledge of which cannot be too generally diffused. There can be no doubt but there will be opened an extensive sale for cocoons from the measures taken by M. D'Homergue, with the patriotic assistance of P. S. Duponceau, Esq. I have ascertained that, in consequence of their exertions, American raw silk has begun to be exported to those foreign countries where the article is most extensively used.

One case of the raw silk, from M. D'Homergue's filature, was shipped the 20th ult. by the Monongahela, Capt. Dixey, for Liverpool; another, a few days after, by the schr. Volta, Capt. Bancroft, to Vera Cruz; and I understand a third case is to be sent to Havre, from New York, by the packet ship De Rahm, Capt. De Peyster, to sail the 10th instant. These are the first beginnings of a branch of trade which it is hoped will in the course of time, prove an abundant source of riches to this country, and which Philadelphia will have the honour of being the first to undertake. *A Friend to National Prosperity.*

January 6.

We copy the following extract from the proceedings of Congress for the purpose of correcting an error into which the committee have fallen, and which it seems to us, it is important to the integrity of history should be corrected also by Congress. We allude to the assertion that the flag is a specimen of American industry "*applied for the first time*" to the production of silk fabrics. This is singularly erroneous, and should be corrected. If the flag is suspended in the House of Representatives, because of its being the first silk fabric made in the United States,—and we can make out no other meaning to the words of the report,—it is honoured beyond its merits, and its continuance there as such should not be permitted. Silk fabrics have been produced in the United States for an hundred years past. and those too of a much higher practical value than this flag. We can adduce many specimens of American industry of this kind, produced years ago. We will only at this time take the liberty of referring to a single case. Mr. Rapp of the society of Economy, Pa. two years ago made a quantity of vesting, and about 100 handkerchiefs, all of excellent quality, and all the material produced from the mulberry at his place. Many ladies' dresses have been made from time to time, as we said before, for a hundred years past, but Mr. Rapp has made a regular business of it.

SILK MANUFACTURE.

Mr. SPENCER, from the Committee on Agriculture, to which was referred the letter of P. S. Du Ponceau, presenting to the House a flag of American Silk and Manufacture, made the following report:

"The committee on Agriculture, to which was referred the letter of Peter S. Du Ponceau, to the Speaker of the House, announcing his presentation to the House of a silken flag, bearing the colors of the U. States, made of American silk, reeled from cocoons and prepared and woven by John D'Homergue, silk manufacturer, the entire process in the manufacture of the same having been performed in the city of Philadelphia—Report:

"That they consider this specimen of American industry, applied for the first time to the production of a fabric in such general use in the United States, in the purchase of which in foreign countries, several millions of dollars are annually drawn from this country, as highly auspicious to the agriculture and arts of the United States; and that Mr. Du Ponceau, for his patriotic exertions in promoting the culture of silk, and in his efforts to excite the attention of the United States to that important branch of industry, deserves the commendation of his country. The committee have received a communication from Mr. Du Ponceau, detailing various important facts and remarks in reference to the bill, entitled 'An act for promoting the growth and manufacture of silk,' which they have appended to this report, for the information of the House; and the committee report a resolution, and recommend its adoption by the House.

"*Resolved,* That the flag, bearing the colors of the United States, presented to this House by Peter S. Du Ponceau, of Philadelphia, made of American silk, and prepared and woven by John D'Homergue, silk manufacturer, in the city of Philadelphia, be accepted by this House, and that it be displayed, under the direction of the Speaker, in some conspicuous part of the Hall of sittings of this House.

Mr. ALEXANDER moved that the report, and letter therein referred to, lie on the table, and be printed.

Mr. WHITTLESEY called for a division of the question; and the question being put to lay the report, &c. on the table, it was decided in the negative; ayes 45—Nays 74.

The question was then put on the adoption of the resolution submitted by the Committee, and it was determined in the affirmative.

Subsequently, the report and letters were ordered to be printed.

RUTA BAGA.—We noticed the receipt of some very fine ruta baga last spring, which had withstood the hard frost of the whole winter without protection in the open ground where they grew. The same gentleman has sent to our office some very fine roots of the same kind that have been exposed in the field where they grew to the whole of the late severe weather, during which time it will be borne in mind, the thermometer ranged for a night or two at 20° below freezing point. These turnips are as sound and firm as they were before the occurrence of cold weather; while all the white flat and other turnips that were not carefully housed have been lost. We notice this fact for the purpose of inducing a trial of it by those who attach importance to the possession of green food for cattle in winter.

RUTA BAGA SEED.

The subscriber has received a large quantity of Ruta Baga Seed, raised by a gentleman of Baltimore with particular care, and with a view to inducing a more general cultivation of this vegetable, to which end (if immediately ordered) it will be sold at half the usual wholesale price when 20 pounds or upwards is taken. Price 25 cents a pound.

Also for sale a few bushels of Sunflower seed.

GIDEON B. SMITH.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—Flour and grain have become rather more settled than at our last date, and we are able to make quotations approaching something near to certainty. One superior lot of white wheat has been sold lately at $1.30, but this could not be obtained for the article generally. Sales of red were made at quotations. The wagon price of Howard street flour was 5.62 a 5.68 yesterday. Beef has taken a sudden rise in consequence of the scarcity, caused it is presumed by the excessively bad roads.

TOBACCO.--Seconds, as in quality, 3.00 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 5.50 a 7.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 300 hhds. Maryland; 17 hhds. Virginia, and 11 hhds. Ohio—total 328 hhds.

FLOUR—best white wheat family, $6.50 *a* 7.00—super. Howard-street 5.75 *a* ——; city mills, 5.62½—Susquehanna, —— *a* ——; CORN MEAL, bbl. 2.25 GRAIN; red wheat, 1.20 *a* ——; white do. 1.25 *a* —— CORN, white, 63 *a* 65—- yellow 63 *a* 65—-new white 63 *a* .65--yellow 63 *a* 65--RYE, .62 *a* .—OATS, .30 *a* 31, BEANS, 90 *a* 1.00-PEAS, 50 *a* 60-CLOVER SEED 6.37 *a* 6.75 TIMOTHY, 2.25 *a* 2.75-—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, — *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, 62½ FLAXSEED 1.20 *a* 1.25---COTTON Va. 10 *a* —-Lou. 11½ *a* 12½—Alab. 9½ *a* .10—Tenn..9½ *a* .10—N. Car..8½ *a* .10½—Upland 11 *a* —--WHISKEY, hhds 1st p 26 *a* —; in bbls 29½ *a* 30—WOOL, common, unwashed, lb. 15 *a* .16-— washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $220 *a* --; Country, dew-rotted, 5. *a* .6c.- lb. water-rotted, .6 *a* 8c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.25 *a*- —— Mackerel, No. 1, 6.00, *a* ——-No. 2, 5.25 *a* 5.50--No 3 3.37 *a* 3.50; BACON hams Balt. cured 10c.—Feathers, 34 *a* 35—Plaster Paris, cargo price per ton, 4.25 *a* 4.31, ground, 1.25 *a* 1.50 bbl.-Iron, gray pig for foundries per ton 30.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00.—Prime Beef on the hoof, 5.50 *a* 6 00—-Pine Wood, by the vessel load, 2.50. Oak, 3.75 *a* 4.00—-Hickory, $5.00 *a* 5.50.

EDITED BY GIDEON B. SMITH.

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TERMS.

1. Price five dollars per annum, due at the commencement of each year of subscription.
2. Subscriptions are in all cases charged *by the year,* and never for a shorter term.
3. When once sent to a subscriber, the paper will not be discontinued without a special order from the subscriber; and then not till the end of the year of his subscription that shall be current at the time of receiving such order.
4. The risk of mail in the transportation of both the paper. and of bank notes sent in payment for it, is assumed by the publishers.
5. Advertisements connected with any of the subjects of the American Farmer, inserted *once,* (never more) at one dollar per square.
6. All letters concerning this paper must be directed to the publishers. They must be free of postage, except communications intended for publication, and letters transmitting money.

Printed by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the American Friend, and Marietta Gazette.)

Extracts from an Address delivered by Mr. John Pearce, *before the Agricultural Society of Washington County, Ohio, October 20th,* 1830.

"Cincinnatus, Fabricius and Camillus were as skilful in using the implements of husbandry as in wielding the shield and javelin. The learned of antiquity were also attentive to the concerns of agriculture. Many of their prose writers gave instructions to husbandmen. Greece had her Democritus, her Xenophon and others. Rome had her firm Cato, and her learned Varo. The Muses too were invoked to shed over the rural landscape the inspiring hues of poetry. Hesiod devoted his poem, entitled the 'Works and the Days,' to husbandry; and, in imitation of him, Virgil wrote his most finished and incomparable production—the Georgics. With many of their rules and maxims the most obscure farmer is familiar at the present day.

"The march of agriculture has vacillated, from time to time, as the policy of government has been favorable or adverse. Wherever the tocsin of war, and the 'hoarse, dull drum have slept' it has been rapidly onward.

"Under the tyrannical feudal system which existed for centuries in many parts of Europe, agriculture made but little advancement. It could not, indeed, be expected that the wretched vassal would feel a deep interest in the improvement of the soil which he tilled, or in the observance of those operations of nature, upon which success in the labors of husbandry so much depends.—But that system, which, like a dense vapour, charged with disease and death, hung over the richest regions of the earth,—chilled the energies and blighted the hopes of the husbandman; has fled before the risen sun of liberty; and now the lights of agricultural science are kindled up, and every where shine with inextinguishable lustre. So soon as the tiller became the *owner* of the soil, his mind was intent on its improvement. He was diligent to acquire all the knowledge, connected with his avocation, and calculated to increase and secure the profits of his daily toils. Hence, in Europe and America, many associations have been formed for the promotion of agriculture, and the arts; and government has been vigilant by legislative enactment to encourage and protect their paramount interests. Under such propitious auspices, it is almost impossible adequately to conceive the rapid advancement and complete success which will attend these departments of human labor. To hasten this advancement, and to ensure this success, the society which I have the honor to address, has been formed. Of its advantages you are fully aware. In its records you blend the results of your observation and experience; and having mutually benefited each other, you do incalculable benefit to the public generally. But this is not all—it is pleasant occasionally to abstract ourselves from the toils and fatigues of our daily avocations—to unite in social and festive circles, composed of persons of kindred views and kindred pursuits—and to indulge those holy flowings of reason and of feeling, which constitute the chief fountain of our happiness, and cheer and support and animate us through the whole journey of human life. A society promising such benefits, and having in view objects so generally important and philanthropic, calls imperiously for your devoted encouragement—your constant support.

"On the principles and process of agriculture, it does not become my duty to say much. My observations shall be general, few, and offered as mere *suggestions,* to be received or rejected, as your own reason and experience may dictate. After having selected his farm, the first object of the farmer, is to determine on that part of it which is best calculated to produce the particular crops which he designs to cultivate and hopes to reap. He should, therefore, have that kind of knowledge which will enable him to test and understand the nature and qualities of his soil. And here we may remark the superior advantages which the scientific farmer possesses over him who is ignorant of the principles which are to guide, and the substances which are to co-operate with him, in all his agricultural experiments. At this stage of his labours, chemistry and geology comes in to his aid. Chemistry teaches him the component parts of the plants which he cultivates, the nature of the soil and atmosphere in which they grow, and the substances from which they derive their nourishment. From geology he learns the qualities of rocks, which constitute the basis of all soil; for it is a fact, known by experiment, that soil is but rock, decomposed by attrition or otherwise, and united with various combinations of vegetable and animal substances. This science also will enable him to foresee what kind of soil is best adapted to the growth of particular crops. Having ascertained this fact, he will be careful to add that compost which may be necessary to improve the land, and remove, or correct those substances which retard vegetation.

"The means of improving your lands, are numerous, and, as you very well know, deserve your strict attention. A few of them may be named. The accumulations of vegetable decomposits, and the constant alluvial deposits on many parts of your farms, are inexhaustible sources of fertility. These accumulations should be removed to those fields which are less fertile, either by reason of their situation or by continued cultivation. Another means of improvement is that species of clover, which is, I believe, indigenous to your soil. The growth of this would be much augmented by the use of plaster of Paris, and become a source of great fruitfulness. This means of improvement is not conjectural. It has been tested in many instances, where the lands were much more barren than any in Washington county. But, gentlemen, I shall not extend my observations on this part of our subject. You are all practicing, or experimenting in your various departments of the great laboratory of nature; and, beyond doubt, you will avail yourselves of whatever may tend to facilitate and render profitable your practice or your experiments."

"Due attention should be given to the rotation of crops. An exhausting, should usually be followed by an improving crop—some variation from this rule is occasionally advisable,—particularly in the cultivation of your alluvial bottoms; which are mostly very fertile, and happily adapted to the growth of Indian corn, hemp, &c."

"In regard to the crops which should be grown in this, or indeed, in any other portion of the country, one general rule may be laid down: cultivate that which yields the greatest profit at the least expense. Indian corn and wheat are the great staples of this state; and they will probably continue to be, for many years to come; but as the growing of these, occupy so large a portion of the farming community, the amount produced, so great, and, consequently, the profits of cultivation, so much diminished—the enterprising farmer will find it advantageous to turn his attention to the growth of other crops.—Permit me, therefore, to trouble you, with some observations on the culture of sugar.

"The production of sugar from the beet, has been treated pretty much at large, in various newspaper publications of the day; and recently we have had an interesting letter on the subject, written by Mr. Wm. Johnson, a gentleman of South Carolina—to our worthy senator, Judge Burnet. Mr. Johnson has been careful in making his experiments, and has ascertained, that the beet yields an equal quality, and much greater quantity, of sugar than the cane—which constitutes the chief fountain of wealth in a southern part of the United States. The sugar beet is easily cultivated, and will grow abundantly in almost every part of the country. There cannot be a rational doubt of the practicability of making sugar from this vegetable to any amount the cultivator may desire.—Here, then, is open to the agriculturist, a wide field of enterprise and profit. It will require little capital, some industry and perseverance, to commence and continue a most advantageous business. The subject is worthy of your reflection. I shall not attempt to enforce its importance, since it will readily appear. But I know, if it be your interest, or desire, to make this, in part, a sugar growing country, and you resolve upon it, that dauntless spirit—that irresistible energy which braved the dangers of an inhospitable wilderness, and put at defiance the yell and tomahawk of the savage—will accomplish your resolve."

"In agriculture, as in politics, it is hazardous to abandon well established systems for new and untried theories. But at this time of general depression in almost every kind of employment, it becomes the patriot—the man of enterprise, to enter the field of experiment; to explore all the sources of honorable profit; and to point out, by practical illustration, the most successful methods of acquiring that pecuniary independence, which administers to the common comforts of life, and, in some degree, sustains the immortal faculties of the human mind, free and untrammelled.

"The depression of the farming interests, does not spring from defective legislation, or government. It flows from other and very different causes. The world is at peace. *The sword has been converted into the ploughshare—the spear, into the pruning hook,* and peace, celestial peace! with one hand, pours out, from the horn of plenty, the rich bounties of her munificence; and with the other, she waves her perennial olive over the civilized world. Those vast armies, the sustenance of which gave an unnatural impetus to the interests of agriculture—are now themselves chiefly engaged in the labors of husbandry. Hence the increased amount of produce, and, consequently, the depression of its pecuniary value.

"A state of peace is natural to society; and with this state, all our employments, to be permanently advantageous, must correspond. Those springs of profit which sometimes flow from the conflicts of war, or from the wretchedness of famine in other countries, are never constant, and always soon exhausted. But were this not the fact—who, for a mere *ephemeral profit*—who that has a heart, warmed by a scintillation of humanity—who that has a drop of the 'milk of human kindness' flowing in his veins—would be willing to see this fair, green earth crimsoned with human gore? No, the farmer will never look for his prosperity to events so transient and unnatural. When the usual productions of his labour, are depressed in value, he will economize. He will renew his efforts to increase and improve his stock. Where his circumstances justify it, he will engage in the cultivation of a variety of crops, and thus make up for the diminution of his income."

"Another resource which will enable you to meet the exigencies of the times, is manufacturing in your own families. Much dependence is to be placed upon the efforts of your virtuous and accomplished wives and daughters. By their hands you may be clad in garments which every man who can divest himself of the whims of fashion and vitiated taste, will be proud to wear. You need but signify your desire, that they engage in this business, and like the good wife spoken of by the wise man of old, 'they will seek wool and flax, and work willingly with their hands. They will lay their hands to the spindle, and their right hands hold of the distaff; their candle goeth not out by night.' The fabricks of their make, are worth more than the silks of India, though streaming with gold, and flashing with gems. It is not for me to eulogise the articles manufactured by the ladies. Those which you have already seen, and those which are yet to be exhibited, speak their own eulogies, and challenge comparison with any articles of the kind hitherto manufactured in this country."

"It is conceded by all, that the science of agriculture is of the utmost importance to society: it is, therefore, a surprising fact, that so few efforts have been made to teach this science in connexion with the other branches of education, taught in our colleges and academics. Some forty or fifty years ago, the Methodist Church in Maryland established a college in that state, in which agriculture and the arts were taught in common with the other branches of useful learning. That institution, when in the midst of successful operation, was burned down. The experiment was not, consequently, fully tested. At this time, there are, in some parts of the country, schools in which the science of agriculture forms a part of their system of education. One is about to be established in the valley of Virginia, on the farm and under the direction of Mr. Richard K. Meade, a gentleman of much zeal and practical knowledge in agricultural pursuits.

"Of the utility of such schools, I think, there can not be a question. To be convinced of this fact, we need but contrast them with the institutions, at which our youth usually complete their education.

"Students enter college, healthful and vigorous. If studious, they become sedentary in their habits—their health declines, sometimes, irreparably: their minds are involved in the labyrinths of science and literature, and, of consequence, averse to manual labour. The result is, they are totally unfit for the business of farming; and almost always desirous of engaging in some of the learned professions. In these, it is the lot of but few to rise to eminence and affluence; and all find it a difficult task to gain even the stations of mediocrity.

'Ah! who can tell how hard it is to climb
The steep where fame's proud temple shines afar;
Ah! who can tell how many a soul sublime,
Has felt the influence of malignant star,
And waged with fortune an eternal war.'

"How infinitely better would it be, to educate our youth in schools where agriculture formed a part of their system of education. In such institutions, the student's health would be preserved—his mind habituated to labor and to study simultaneously—his mental and physical energies rendered vigorous and elastic, and he fitted in every respect for a scientific and practical agriculturist—a citizen too, adequate to any station in society to which the voice of his countrymen might call him. The more you reflect on the advantages of such an institution, the more you will be convinced of its utility. I submit the subject to your consideration.

"In conclusion, gentlemen, while we are attending to the cultivation of our farms, let us not neglect the more important culture of our minds. Let us not forget the cause of public education; nor cease to guard, with sleepless vigilance, the sacred tree of liberty; which was planted by the hard toil, and nourished by the pure and patriotic blood of our venerated ancestors. And while we are enjoying and feasting upon the exhaustless bounties of Divine goodness—while we are traversing these rich and beautiful fields, laved and fertilized as they are by our own mighty rivers—while we behold those towering hills, fit emblems of our national independence, or gaze with wonderous contemplation, on 'yon brave o'erhanging firmament—yon blue majestical vault, fretted with golden fire,' let us ever be constant in paying that devotion and that adoration which we owe to the Divine Author of the Universe."

Salt water has been discovered in the interior of Pennsylvania between the Susquehanna and Alleghany rivers. From a well 17 feet deep, 24 barrels per hour of water containing 4 per cent. salt is taken. A company is formed to manufacture the salt.—*N. E. Farmer.*

INTERESTING TO FARMERS.

White Post, Frederick Co. Va. Dec. 27, 1830.

Mr. Davis:—Permit me to mention in your paper the progress and improvement of the bull Powel, derived, on the father's side, from the Durham short-horn stock, and now crossed and united in the future denomination of the *Frederick short-horn.*

As no pains or reasonable expense will be spared to bring this kind of stock to the utmost degree of perfection in the acquisition of the knowledge and experience which has preceded us, aided by a selection of the most perfect animals of our native breeds, combining as far as practicable the qualities of the dairy and the shambles, it is hoped it will not be deemed presumptuous to attempt to improve even on the short-horns. A few months more will decide on the probability of the attempt.

An offer of from 30 to 100 dollars for cows giving from five to eight gallons of milk per day, has had the effect of producing for examination and trial some splendid animals, with points which had been entirely overlooked by their former owners. Already has a system of breeding been commenced on this plan with a cow so universally admired that many are the applications for her first calf.

Powel (by Edward and Blossom) weighed, in the presence of some of my neighbors, 708 lbs. at seven months and twenty-six days old; 1045 lbs. in the Winchester hay scales at one year and a week old; and on the 22d of December, per certificate of the scales-man, 14 cwt. 35 lbs. equal to 1603 lbs. at nineteen months and twenty-six days old, and bids fair to weigh more at two years old than his sire did at three years and nearly three months old, which was 1850 lbs.; but Edward would have exceeded 2000 lbs. had not a swelling in his throat, which finally killed him, prevented it.

Powel weighs, for every day of his existence, 2⅔ lbs.; and an increase of 2½ lbs. for every day, supposing him to have weighed about 100 lbs. when he was calved. He has never been fat, his rapid growth not permitting it. It is hoped he will be weighed again in April, when a committee of graziers and butchers will be solicited to examine, criticise, and pass their judgments upon him in all his points and external appearance, and under every circumstance to pronounce what in their opinion are the peculiar causes of his great weight, independently of the care and attention his keeper acknowledges he has received.

But not meaning to forestall opinion, it may be well to remark, for the benefit of all those who desire to select stock for improvement, that the great and apparent points, independently of the internal structure, are those of great length of body, rotundity, straightness of back, width of loins, and fulness of rump and thigh, with a broad chest and geral uniformity of frame. These are some of the visible properties producing such a weight at so early an age. Other and internal qualities would, to touch on them, involve a dissertation which more time and further experience will make more acceptable, and better suited to some occasion where further developments may be met by co-operation more propitious to the essentially scientific elevation of agriculture. Should Powel visit Winchester in the spring, he will be permitted to remain there a few days, if it is understood to be desirable in that vicinity.

I am, &c. Richd. K. Meade.

N. B. It was greatly owing to the appearance of Powel, that his full brother, at 5 months old was sold to a James river gentleman for $100 cash. The mother is again with calf by Edward.

[*Winchester Republican.*

The cotton crop is greater in Louisiana and Mississippi this year than was ever known before.

[*N. E. Farmer.*

MAIZE CROPS.

Clairmont Nursery, near Baltimore, Jan. 17, 1831.

Friend Smith,—I have observed the inquiries and observations of Anthony Lamb, Jr. in the last number of the American Farmer, in consequence of a recent publication in said paper, extracted from Lorain's Husbandry, containing remarks on Judge Peters's practice in fallow crops of maize, and the cultivation of the crops following it.

Not having said publication before me, I shall be obliged to write more from experience than from any knowledge derived from Judge Peters's practice, and apprehend I can reply to the inquiries best, by giving a short account how I cultivate corn, and prepare the ground for crops that follow it.

For corn I mostly break up a field that has been in clover and other grass two or three years, which I perform by a strong three horse team cutting a wide furrow, at least seven inches deep; (my land is a sandy loam, which will produce from thirty to fifty, bushels of corn to the acre,) laid nearly flat, carefully laid over, then well rolled to close the seams to smother and decompose the grass. Before planting I harrow the ground with a long tined heavy three horse harrow, until the ground is mellow and fine; then with a light one horse plough, mark the ground at right angles, at the proper distance for planting, which is performed with the hoe as usual.

When the corn has got three or four leaves, I harrow and weed out the young plants with the hoe; in about a week after this hoeing I run a five tined cultivator twice in the intervals between the rows of corn, which is performed by one horse, which ought to be repeated at right angles once a week until the crop is finished; by that means the grass is kept down, which if once got a hold would render this expeditious implement useless, but if the land is naturally stiff, or made so by repeated rains, or suffered to become grassy, the one horse plough must be used and run three or four inches deep, the deeper the better, provided the old grass sod remaining below is untouched, for the roots of corn and after crops to expand in, where the noxious weed seeds and roots are kept harmless, and promote the growth of the useful crops.

When the corn and stalks are removed, before winter sets in, plough the corn ground the above depth, and leave it rough through the winter to pulverize with the frost. In the spring, as soon as the ground is dry enough, which is mostly the case with us between the fifth and fifteenth of March, sow the aforesaid ground with oats, barley, or spring rye, the two latter crops requiring the richest ground, and the two former require two bushel of seed to the acre, and the latter five pecks: where the land is richer the seed may be increased in proportion; then harrow in the seed, or if the ground has become stiff or packed by repeated rains use the cultivator,* which will effectually stir the ground three or four inches deep, two feet wide at each passing, making great despatch, which is highly necessary at this critical season of the year. The advantage of getting spring grain sowed early, is, I believe, well known; it covers the ground early while the ground is damp, and drought and heat are absent, which are injurious to late sown crops. I will remark here that I have long endeavoured to sow as much spring grain, and have as much gardening done in the early part of the above month as possible, before the expected equinoctial rains and frosts set in, which frequently prevent such operations for twenty or more days,—hence one of the advantages of ploughing in the early part of winter; and another is, the surface of the rough ploughed ground is more mellowed, and I think fertilised by the winter frosts, amongst which the grain on this plan is deposited, and I think thrives better than on fresh ploughed ground where the surface has not been exposed to the winter frosts. Some of these subjects and views run wide from the inquiries of friend Lamb, and may not be necessary for him; but if they in a small degree prove useful to other persons, my object will be attained. But remember, on deep ploughing success depends, without which the above light and cheap culture would not answer; but with it great crops at a moderate expense may be expected. Respectfully,

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* The above cultivator is made and sold by Sinclair & Moore, constructed as follows: the frame is a long triangle, made of scantling of strong wood, 2½ inches square, with a pair of handles to govern it; into the frame are inserted firmly, five steel edged tines, projecting about seven inches below the wood; they are circular, and will cut about four inches wide each, and so inserted in the frame as to cut the ground at equal distances apart, and loosen and cut about three or more inches deep, and so made as to give the least possible resistance to the draft, thereby making easy work for one good horse. Price six dollars.

Robert Sinclair.

(From the New York Farmer.)

MANGOLD WURZEL.

The advantages of mangold wurzel are these:—It is more sure to plant, being very little liable to the fly or grub; it will produce more weight; it is off the land earlier; it is useful as a change of fallow crop, when the land is tired of turnips; it will grow on land where turnips cannot be raised; it is better spring food. On the other hand, in favour of Swedish turnips, it may be said, that the weeding and singling out are less expensive; there is rather more time for fallowing in the spring; the succeeding crop is better than after mangold wurzel. Perhaps cattle feed best on Swedish turnips when they are used alone.—It must, however, be remarked, that these last two evidences in favour of Swedish turnips is not fully proved, and only partially supported. In conclusion, perhaps two observations may be of use. First, that the very early season at which mangold wurzel should be sown renders it highly expedient that the land should be made as clean as possible in the autumn, so that a few days in the spring may be sufficient to get it in a proper state for the reception of the seed. Secondly, that wet seasons do not suit mangold wurzel so well as dry: and, consequently, for the last two years, the Swedish turnips have been the more valuable crop of the two.

HORTICULTURE.

(From Wilson's Economy.)

RAISING EARLY CABBAGES.

One method of raising early cabbages, is to have a hot-bed prepared, and all ready to sow the seed upon, on the 22nd of February, or, at any rate, between that and the first of March. Here it will be necessary to say a little about the nature of the materials proper for making the bed.

The proper dung for a hot bed, ought to be collected from any place, where there are a sufficient number of horses kept, so as the daily cleanings of the stable will be able to maintain a constant and lively heat, in the whole heap, where their dung is deposited. In the loading and riding of it, much of the rank steam passes off; still it may be turned over, and shaken well up, once or twice previous to making the bed. But, as cabbages and lettuce require but a very slight heat to raise them, the bed ought never to be made more than two feet high with dung; I seldom make mine more than eighteen inches.

As to the making the bed, any man, that can load a dung-cart, can hardly err in this. The ground on which it is to be formed, is marked out, by driving down four stakes, one at each corner, on a scale six inches larger than the size of the frame. A layer of a few inches in thickness, of the longest of the dung, is shaken all over the bottom; another layer about the same thickness, of long and short, as it comes, is shaken all over the first, the whole well beat down, with the back of the dung-fork, its edges all neatly trimmed in correct lines; and in this manner, the operations are continued, until the bed is raised to a height of eighteen or twenty inches. If a layer of short shovellings can be scraped up, to finish the top, it will be all the better. Beat the whole neatly, all over, with the back of your dung-fork, to a true level. Place on your frame, and keep the sashes close, until the steam begins to rise, which will be about twenty-four hours; when some, or all of them, must be tilted an inch or two behind, to let it pass off. Such a bed is never apt to heat to any extreme; and, in a few days, it will be ready to receive the earth. This may easily be known, by thrusting your hand down some way into the dung; whenever it feels about the degree of blood heat, you may earth it all over, to a depth of six or eight inches. A sufficient quantity of fine, light, dry good soil should be selected for hot-beds, in the fall, and deposited near where the bed is to be made, and covered over with a sufficient quantity of litter, or any thing to keep it from freezing. The next day after your bed is earthed, it will be fit for sowing. The sashes should be taken off, and the soil made perfectly level and smooth, with a fine light rake. The seed should then be sown pretty thick, all over the surface, and, with the back of a spade or shovel, pressed neatly into the earth. This is a process similar to the treading in of seeds sown in the open ground, and is of grand importance in seeding a hot-bed. Then, with an iron sieve, sift just enough fine earth to cover the seed, all over the bed. In want of a sieve, you may sow it lightly, all over, with your hand A good hand can easily fix and cover the seed with a rake, but it is a dangerous tool here, in the hands of one not well used to the handling of it. The sashes must be immediately put on, and well covered over, at nights, with mats, or board covers, or straw: and, in the day time, you must shade the bed from the rays of the sun, until the plants come up; and, at all times, if any steam appears, tilt a little, some of the sashes, to let it pass off; and at nights, or cold days, let a mat hang over, to prevent the keen air from entering directly into the bed.

I have never seen, nor heard, (except from Cobbett,) of the necessity of lining a hot-bed, for cabbage or lettuce. Should the weather prove very severe, or stormy, six inches of warm, but not burning dung, may be raised all around the outside of the frame, on the top of that part of the bed, which was for that purpose, if necessary, directed to project beyond the frame. This will sufficiently secure the bed from all external injury, and the plants will thrive better without any additional bottom heat. All that is afterwards necessary is, to give plenty of air, at all times, in good days; to cover well at nights, and keep the earth moderately moist, by frequent, but gentle waterings.

It is a disagreeable pursuit, even for a gardener, to expose the errors of a fine writer, but a bad horticulturist; yet, the transplanting of cabbage plants, at the tenth of April, into a secondary hot-bed, as directed by Mr. Cobbett, in his 87th paragraph, exhibits such a degree of the man's ignorance of the art, and actual practice of gardening here, that it appears to be the duty of those who are well acquainted with both, to use every fair and honorable means of warning their fellow-citizens of the danger of following the dictates of a man, who, whatever he may be, in other respects, proves to be so ill qualified for instructing others in an art, which his vanity seems to have led him to believe Americans were as ignorant of as himself. Had he condescended to visit the numerous market gardens, in the very vicinity of where he wrote, he might have seen hundreds of thousands of cabbage plants, set out for good, with plants raised from seed sown the last of February, at the very period (the 10th of April) when he gives directions for making a new bed to forward and protect them.

Every body knows, that cabbages, as well as any thing else, may be grown to maturity by a constant aid of hot-beds, but this is avowedly not Mr. Cobbett's object. He says, he writes for farmers; and neither they, nor any body else, will ever make a hot-bed, to set cabbage plants in, at a season of the year, when they will thrive, and grow to a great perfection, in the open ground. In the most backward season I have ever seen, the most timorous or indolent gardener never needed to delay the setting out of his early cabbages, beyond the twentieth of April. In the year 1817, I had two acres of ground in radishes, which, by the 18th of April, covered the ground with their foliage, and their roots the size of a goose-quil. To have seen my cabbage plants, at that period, upon a hot-bed, would have made Cobbett himself laugh heartily; and, as we are now in good humor, we shall dismiss this cabbage-headed contest, by advising our reader, to set out his early plants, any time in the beginning of April, but never to delay it beyond the middle of the month.

(From the New York Farmer.)

On Pruning Gooseberry and Currant Trees in January.

Gooseberries and currants bear both on the young one or two years wood, and upon the several years branches, generally upon small spurs rising naturally all along the sides; and in each winter pruning it will be required to cut out any casual worn out, decayed, and very irregular branches, and a proportionate supply of last summer's young shoots retained, and the rest pruned out.

In pruning gooseberries, let them be always kept thin of branches, and these not permitted to grow ramblingly across one another, but all pruned to some regular order, so as the main bearers, or general branches and shoots, stand six or eight inches asunder at the extremities; and generally, either keep the middle somewhat hollow, or, if permitted to run up full in the heart, keep it thin of branches, as above advised; so that you will now prune out any irregularities, &c. such as casual crowding cross-placed wood, and any worn out or naked old branches, retaining young shoots, where necessary, to supply their place; and cut out all the superabundant lateral shoots of last summer, close to the old wood, only retaining here and there a good one in vacancies, or occasionally towards the lower parts, to be advancing to a bearing state, to supply the place of casual worn out bearers; and generally leave, where practicable, a terminating or leading shoot to each main branch, either such as is placed naturally at or near the end of the branch; or, occasionally, where any branch is too long or rambling, prune it down to some convenient lateral shoot, &c. to remain for a terminal leader; and, in both cases, generally leave but one terminal to each branch; and all those shoots now retained, both lateral and terminal, should either be mostly left entire, and only shorten long stragglers, and very bending and reclining growths, occasionally; or, at least by no means shorten the shoots of these trees too much; for by cutting them very short, they are made to produce a deal of wood and but small fruit; and being so full of wood, as to exclude the sun and free air in summer, the fruit cannot ripen well; and it likewise renders it troublesome to get at the fruit when fit to gather. Never clip the trees with garden shears, as is the practice of some ignorant persons.

Currant bushes should likewise be kept thin and regular, not suffering the branches to run promiscuously across each other; for when suffered to grow so irregular and crowding, they produce but small fruit; and the great thicket of branches excluding the essential benefit of the sun, the berries will not ripen freely and regular, with a good flavor; observing therefore to keep the general branches thin, about six or eight inches asunder; in which, if any are too crowded or over-abundant, prune out the most irregular; also any cross-placed branches, and casual worn out old bearers, together with all the irregular placed and superabundant young shoots of last summer, preserving only occasional supplies of the most regular ones in vacancies, and a leading one at the termination of each branch, agreeable to the rules exhibited above in pruning gooseberry bushes; and the general upper shoots may be mostly shortened more or less, when required to keep the head to a moderate extent, and a compact handsome growth.

Observe in pruning young gooseberry and currant bushes, let those designed for standards be pruned to a clean single stem, eight, ten, or twelve inches; and being careful to retain a requisite supply of the best young shoots properly situated above, to form the head accordingly, cut out the irregular and ill-placed; and the retained proper shoots may in some be moderately shortened, especially such as run away straggling from the rest; and any proper shoots advancing below, may be permitted to remain entire till advanced equal with the others above, &c. that the whole may come on as equally as possible, to form a regular head.

Currants and gooseberries trained against walls, palings, trellises, &c. should also have a necessary pruning and regulation in the general branches, or as may be required, cutting out the superabundant and irregular placed shoots of last summer, or any casual or too crowding and disorderly growing older branches, or such as appear unfruitful, or any of a worn out or decayed state, and all dead wood; retaining young shoots advancing from below, and in the most vacant parts, shortened more or less, or left entire, according to room for extending them; and train the general branches, &c. three or four, to five or six inches distance.—*McMahon.*

(From the New York Farmer.)

SWEET AND SOUR APPLES.

Mr. Bradley mentions an apple which was sweet and boiled soft on one side, and sour and boiled hard on the other, (*Treatise on Gardening*) and the late John Jay, of New York, notices another sweet on one side and sour on the other.—(*Comm. Board Agric.* vol. i. p. 362.) I can relate a third case of a similar nature. The late Levi Hollingsworth, merchant, who resided for more than sixty years in Philadelphia, and was a man of the highest integrity, informed me, several years since, that when he was a boy, living at Elkton in Maryland, there was a full grown apple tree, the fruit of which was sweet on one side and sour on the other; on the same limb there grew apples quite insipid, others sweet, and others sour. He mentioned the fact as of his own knowledge to a club of literary gentlemen, who met at a public house once a week to discuss useful subjects, in the year 1762. in Philadelphia; but the doctrine of the marriage of plants was not familiar to them, and the fact was doubted. This so mortified him, that he went down to Elkton, in company with the late Mr. Samuel Nicholas, who was a respectable citizen, and brought away several of the apples to the club. Mr. Hollingsworth assured me that the tree had never been grafted. J. M.

Philadelphia, Sept. 7, 1829.

SETTING THE TOKAY GRAPE.

I have for the last seven years practised the following method of setting the Tokay Grape with the most perfect success:—before the vines come into flower, I keep them in a temperature of from 70° to 75°; and as I see the first opening of the flower, I gradually lower the temperature to 60° or 65°, and find that they set freely, and as well as the Hamburgh, and other free setting kinds.—*N. Y. Far.*

(From the New York Farmer.)

APPLES AND PEARS ON THE SAME TREE.

"Mr. John Gage of Upton Union, a few years ago, grafted a pear upon an apple scion in his garden. When it grew up so as to begin to bear, it bore for two years very excellent pears. The third and fourth years its leaves, which formerly were those of a pear tree, changed, by degrees, to those of an apple tree. The fifth year, and ever since, it has borne excellent apples. This has been related to me by at least fifty of the most respectable men on the spot, who personally knew it to be true." (*Job Johnson,* in *Long Island Patriot.*) J. M. *Philadelphia, Sept.* 7, 1829. Unquestionably an error in the observer; the scion in all probability never united properly, and a shoot from the stock was mistaken for it.

RURAL ECONOMY.

(From the New England Farmer.)

THE HONEY BEE.

THOMAS G. FESSENDEN, ESQ.—

Dear Sir,—Among the whole tribe of insects no one has, from remote antiquity, arrested the attention of naturalists and philosophical investigators with deeper interest than the *honey bee.* It will nevertheless, be conceded that we are yet deficient in our knowledge, in many points of their true character and peculiar system of economy, nor can our inquiries be fully satisfied, till we can learn to distinguish the precise line between mind and matter, or intelligence and unerring instinct. Having devoted a portion of my latter years to this recondite but pleasing subject, I have found a gratifying resource in a correspondence with intelligent apiarians, distinguished for both theoretical and practical knowledge.

Presuming that the following correspondence will prove interesting, or at least amusing to many of your readers, I present it for insertion in your very valuable vehicle of intelligence, and subscribe myself, very respectfully, your obedient servant,

JAMES THATCHER.

Copy of a letter from Jerome V. C. Smith, M. D. to Doctor Thatcher, dated, Quarantine Ground, Port of Boston, August 3, 1830.

Dear Sir,—By the promptitude of our friend, *Robert Treat Paine,* Esq. who is destined to be the American astronomer, your note of the 28th July, came to hand yesterday. I am wondering how he could abstract himself long enough from the society of the stars, to interest you with a history of my apiary.

By the nature of your inquiries, I am fearful you suppose me much better acquainted with the natural history of the bee, than I really am, and more philosophical in my investigations, than in the sequel, I may deserve credit for.

Placed, as I am, on a small island, Quarantine, excluded by the nature of hospital duties, from all appreciable society, I have actually been obliged to seek rational enjoyment and happiness, in the contemplation of the structure and habits of every insect and creeping thing that happens to make its appearance: the moment my interest was excited, I found that it would never do to depend on such precarious supplies. Believing there was much more to be known of the bee than has been discovered, and, withal, hoping for a supply of *subjects,* I purchased a hive, in Dorchester, in the spring of 1827, at the price of eight dollars. The hive was a pine box, about nine inches deep and fourteen or fifteen inches square. Through the top of this box, was an aperture, perhaps two inches in diameter, over which a second box, precisely like the first, only smaller by several inches, was placed. The servant who went for them said that the lower box, with its contents, weighed forty pounds,—and, therefore, was pronounced by the seller, an excellent hive. In truth I suspect it was a small kingdom, thinly inhabited, suffering from the evils of an exhausted treasury.

Perhaps you may grow weary of this detailed history of one hive; but in giving you the whole matter at once, there will be no danger of being surfeited by a future repetition of the same story. Well, after being placed on the head of a barrel, in the course of two days, they commenced operations by searching all the miserable little flowers that had appeared. It was so apparent that they could not procure food enough, that a piece of old comb was filled with honey, on both sides, and laid in the lower box, between their empty combs and the floor. The attention of the island keeper, who was in the habit of frequently looking at them, by raising the box, was soon excited by observing that the bees had raised the horizontal bit of comb, to an inclined plane, by building a column of wax under one end of it, so that they were enabled with ease, to get at the honey, which, by the way, was old and adhesive, in all the cells on the underside. A larger piece of old comb, charged, with reference to their mechanical skill in raising a great weight, to such a comparative height, was now placed inside, and elevated on a column, as in the first instance, before we were aware of their readiness to commence the undertaking. Whether they took portions of their own empty comb, or pared the foreign bit, to construct the prop, we were not critical to determine. Flowers were now beginning to appear in the garden, where the hive was conveyed one evening, to a temporary house, about thirty rods from their first locality, on the island. By accident it was discovered, that, instead of returning to the hive, after the labors of the ensuing day, they were clustering together, towards nightfall, on a tuft of grass, nearly on the spot were the barrel stood. We roused them, repeatedly, vainly hoping they would go to the hive, but the effort was unavailing, as they would join the nucleus in a very few minutes. On viewing the hive, there appeared to be a respectable number there;—the guard were on their posts, at the entrance;—and on the whole, the usual order and discipline appeared uninterrupted. Where was the queen at this crisis? Was she at the hive or on the grass:—or had a royal princess escaped from confinement, and were a part of the subjects following her destiny? Fearing a total loss of those on the grass; and soon too, as a heavy mist was falling, the island keeper took a large earthen vessel from the hospital, and waiting till they were comparatively quiet, took them up by handfuls into the pot, and poured them into their domicil. He was stung in only one place, by pressing one betwixt his arm and sleeve. No extraordinary commotion resulted from carrying back the fugitives, nor was there any subsequent excitement or turmoil, within or without, that was extraordinary.

Several times, a heavy piece of comb, charged with honey, was laid over the hole, which communicated with the upper box, and as readily moved or raised, that it might be searched, as when placed entirely within their habitation.

On the 15th of June, I placed over the aperture, a glass hive, shaped much like an inflated bladder, capable of holding nearly three pecks of grain. It was blown of pure flint glass, very clear and thick. Indeed, it resembles a balloon, more than any thing else. Near the top, is a ventilator, like the mouth of a phial, in which a cork is sometimes kept. Suspended from the centre, is an ash rod, three quarters of an inch square, reaching within six inches of the hole, through which the bees pass from the old box. On this, are three cross bars, reaching laterally, within two inches of the glass walls. The globe is not set flat on the top of the old hive, on the contrary, it stands on several little blocks, half an inch high, so that the bees can pass and repass freely, under the edge of the glass, in various directions, towards the walls of the wooden, tight, iron-bound case, which encloses the glass. In the sides of the latter, are doors, through which, at leisure, I can inspect the bees, at all their working points. Standing within a little building, in one corner of the door-yard, which, from the circumstance of having a dome, an arched door-way and a few pillars, is denominated the *temple of industry,* I have made such observations, from time to time, as are now presented you.

1. *Of the Industry of the Bee.*—"Many hands," says the proverb, "make light work;" this is true in relation to a hive of bees. When my hive, in 1827, had about three thousand,—very little progress was made; some old comb was repaired, but a very little constructed. They were constantly endeavoring to rear the young—feeding them with all the honey they could procure. Having been presented with some Havana honey, of bad quality, they were fed with it plentifully. Such a seasonable supply enabled them to rear a supply of laborers. In the spring of 1828, although almost destitute of honey, they commenced a small mound of comb, at the side of the hole, on the upper side, within the glass bell. The question at once arose, in my mind, whether there were a class of bees, that were architects exclusively, as it was certain, the season before, no building was done; but since the addition of new members to the sovereignty, new comb was being constructed, though there was no necessity for it, as there were, to all appearance, empty cells enough to store all the honey that might be collected during the season. I marked those bees, on the head, with a brush, dipped in whitewash, as they were sticking the little pellets of wax together, on the borders of the new comb. By long, and sometimes, tiresome observation, I found those masons kept on the foundation, day after day, and that they labored only a very small part of the time. It would seem that they were sometimes waiting for mortar; and at others, when it was deposited by carriers, close to where it was required, they were in no hurry to use it. Apparently examining the work, two bees would accidentally meet, and were they not interrupted by any order from a superior, would dress each other's limbs, wings, feelers, &c. precisely as cattle in a field will lick each other's head and ears. This is very common: I have seen them dress each other in this way, a whole hour; and I have also, seen them quit, instantly, as though commanded, and resume their work. The honey gatherers seem at times to skulk about the hive, as though they were unwilling to go abroad; sometimes, a numerous body of them, wandering over the cells, are suddenly driven out, and the front of the hive presents a very sudden activity. I am induced to suppose they want urging, and perhaps punishment, at times, to complete their task.—How is it, that we see an apparently healthy bee dragged out of the hive, dead, occasionally? Are they put to death for refractory conduct?

2. *Government.*—Notwithstanding an extraordinary attention to the construction of the glass, *which magnifies the bees considerably* where it is most convex, I never have discovered the least clue to the mode of government. A peculiar noise like the singing of a cricket, is sometimes heard, deep in the centre of the hive, but there are no indications of particular attention, on the part of the bee. Is this made by the queen? On the whole, I have concluded that it must be by a young one, freeing itself from the cell and trying its wings. That there is a peculiar discipline, is beyond all manner of doubt. Certain it is, that those that gather honey, after they have deposited, are not allowed to taste it.—On a rainy day, when all were at home, I often observed them travelling over the pots, looking at one, feeling the depth of another, &c. but the moment they thrust their proboscis towards the honey, as though they were about tasting it, they are oftener driven away, by an invisible something, before succeeding, than otherwise. There are watchmen every where, and this I infer from marking them:—finding them a long time near one spot, unengaged, and occasionally sipping the honey fearlessly, as they go their rounds. In the warm season, there has always been a sentry, but more commonly four, at the entrance of the hive. Their heads are inward, while their wings, in the most rapid motion, seem to imply that those inside know they are securely guarded, as long as the humming continues. When they have been forced from their position, many make their appearance; and I have seen them run over the whole front, as though anxious to ascertain the difficulty. As the cold weather approaches, the guard disappears, as insects and other enemies, attracted by the odour of the honey, are no longer feared. I think the government generally, and certainly all special commands, are first made and propagated by the appropriate officers, by striking the horny tip of the tail on the hive or comb—so that a tremor, differently modified, gives a general as well as instantaneous information, which every bee not only perfectly understands, but quietly obeys.

3. *Contrivance.*—A very large spider got within the glass bell, just as the mound had been commenced. The bees left their work to pursue the common enemy, but did not overtake him, as he succeeded in climbing up the glass much better than they. Having made, *en masse,* a thousand attempts, but falling back before reaching the intruder, they turned their attention to raising a pillar by which they might reach him. In two days the column of small diameter, was six inches high, so that they could step to the bar before mentioned suspended from the centre. Mounting this in astonishing numbers, he was forced to take to the glass again. Being within two inches, though losing their foot-hold and falling to the bottom, constantly, their progress was such as to alarm the spider exceedingly. I watched the approaching conflict with intense interest; when lo! the spider eased himself down on a cord, of his own manufacturing, just as the bees were on the point of seizing him. Thus, securely suspended midway, betwixt the central pillar and the side of the glass on a single thread, perhaps a foot in length, I was obliged to leave him. On the following day, the spider still kept at the end of the rope, though the bees were trying by a variety of schemes to get at him. I wondered they did not fly at him, as there was room enough to use their wings. To my regret, in the course of that day, the spider was missing, and probably despatched in torture.

Turning an arch of wax like an oven over an enemy, and removing the offender, whenever dead, is resorted to occasionally.

4. *Disgorging Honey.*—It is generally admitted I believe, that the bee swallows the honey, and that it is disgorged into the pot, by some kind of effort. Probably by being mixed with the peculiar secretion of the organ, the quality, if not the quantity of the honey is changed. In fact, this must be the case, as direct experiment shows, by feeding a hive on West India honey. A single bee, might carry from the mouth to the interior two or three teaspoonfuls in a day. Three large coffee saucers have been repeatedly conveyed into the hive in six hours. This very day, (August 8) by way of ascertaining a point, a tumbler of honey spread on a plate, by only a small part of the whole swarm, was taken in in two hours.

The contrivance by which the process of disgorging is effected is so simple, and withal so admirable, that it must interest the students of nature. Independent of muscular action, a complete collapse of the sack, takes place—by a pressure, beginning at the fundus, and gradually propagated towards the æsophagus or swallow, this is accomplished by a series of air bags, of irregular shapes, surrounding the reservoir. When the bee desires to deposit the honey, by elevating the wings, and commencing a vermicular motion, that is, a to and fro working of the rings of the body, the air enters the spiracula, distends the air cells, and thus effectually forces the reservoir. I have procured a variety of those air bags on a scale of two feet, that their shape might be seen and their function understood.

5. *Food.*—My experience leads me to suppose that the bee can extract honey from almost any flowers with impunity. An abundance of stramonium grows on this island, which it would be a task to destroy, and on which they undoubtedly feed. I am not conscious that the quality of the honey is injured in the least; all my attempts to feed them on buckwheat flowers have failed: perhaps the salt spray injures the blossoms for their use. Catnip blossoms they delight in: currant blossoms and the flower of a large kind of bean, called by the gardener, English coffee or Windsor bean, are sought for with avidity. From the dandelion they collect, at this place, the principal part of the material for comb. From the cedar posts, they seem to procure something, of material consequence. The sunflower probably yields a quantity of the yellow dust with which we see them load their thighs. Being rather coarse, they do not seek it, if other flowers abound.

Were I a farmer, I should certainly cultivate a field of catnip solely for the bees, fully believing it gives off in a warm summer, a good deal of saccharine matter, besides imparting a delightful flavor to that with which it is mixed.

6. *The Queen.*—I am in doubt what to say of the queen: perhaps I may have been deceived in supposing her before me; and on the other hand she might have gone in state, without my knowledge. Notwithstanding all that writers say of the queen, I am beginning to be sceptical; in fact I am much disposed to question the existence of such a ruler. My hive must have exhibited her were she among her subjects. Were it not absolutely rude towards those learned entomologists who have gained such distinction in the world, by unfolding the political condition of a bee hive, I should say the queen was an imaginary despot. I am unwilling at present, to communicate my theory, lest it should be incorrect.

7. *The Young.*—From a series of examinations, I am led to suppose that an egg is deposited in every cell of honey, throughout the hive; how or why it begins to increase in size, excepting it be by the increased temperature of the air, I will not pretend to say. That the temperature varies, is well known: in some of the coldest days in March and April last, the mercury would rise to summer heat. It is soon known, when the maggot requires material attention. About the last of June, such broad sheets of comb, having a maggot, just discernible, at the bottom, were so conspicuous, that I used to importune gentlemen to witness the process of feeding them. The bee extended its proboscis quite deep, till, as nearly as could be ascertained, the brush, charged, probably with its appropriate nourishment, touched its mouth. A slight motion, observable in the worm, was taken to be the evidence of its feeding. The cells, too, were kept most perfectly clean; we judged they were fed about once in twenty-four hours. By the 25th of July, past, they were generally full grown, and by degrees, emerged from their birth place to mingle with the others.

8. *Drones.*—I scarcely know what answer to give to your question relative to the drones. I have never witnessed a general massacre: those cruel executions, where two or three are forced from the hives at a time, and stung till they die, have been noticed repeatedly. How do you explain the following account?—Just as the young ones had arrived to a size, that completely filled the cell, they were killed by hundreds. Perhaps a gill, large, white and plump, with folded wings, were drawn out on the lighting board, in one night last week. This morning, I discovered about thirty more, and perhaps a pint may have been dropped in the vicinity. Just as they had attained a growth which required the unceasing care of their nurses, they have been slain without mercy.

Are these young drones? I have fancied they were.

9. *The Moth.*—About two hours before your letter was brought, while examining the mouth of the hive, a bee-moth lighted on the edge of a plate, where the bees had been feeding. It was chased one side repeatedly, but not taking the hint, a bee finally seized it by the head and fell with it to the ground. It was stung repeatedly; but when the bee left it, though alive, it appeared badly injured. A little servant girl standing by, wondering, I suppose, how the conflict could interest me, killed the moth with a stone. An empty long neck bottle, with a little honey at the bottom, placed close to the hive, at night, when the bees are within door, is a capital trap. Though bottles full may be so taken, their number seems undiminished. I am inclined to suspect the odour of the honey collects them, and that they cannot injure the bee in any other way than by stealing his goods, or occasionally dropping an egg in a honey cell. Uncommonly large worms are sometimes dragged out, dead,—which we have supposed to be the moth,—killed as soon as its true character is developed.

I was much interested in your work on bees—loaned me by my friend Mr. *Porter,* Editor of the American Traveller.

Finally, you ask me whether I derive a profit from the culture of bees? The fact is, the idea of profit never occured to me; my first and present object, is to study them.—My hive is now very large, and perfectly full,—having never swarmed—whenever they exhibit indications of it, I propose to insert another box, to give them room. In this way, I hope to have a formidable hive. It has been thought that it now contains upwards of two hundred pounds, and so packed with beautiful flakes of pure, white comb, intersected by roads and paths, that every one, unacquainted with the peculiar, instinctive habits of the bee, views it as a great curiosity. The additional convenience now contemplated, is a glass floor, to enable me to look upward, with a light at the top; I hope for some insight into their out-of-sight economy.

Without reference to theories, or, indeed the facts of writers, I have given you the results of my personal observations. If I have been deceived, you will be able to make the corrections. It would give me great pleasure to add something to the stock of general knowledge, relative to the cultivation of bees, as a source of profit, but at present, my locality forbids an experiment.

Very respectfully and obediently, yours,
JEROME V. C. SMITH.

James Thacher, M. D.

MISCELLANEOUS.

(From the New York Evening Post.)

THE BUCKWHEAT CAKE.

"But neither breath of morn, when she ascends
With charm of earliest birds; nor rising sun
On this delightful land; nor herb, fruit, flower
Glistening with dew; nor fragrance after showers;
Nor grateful evening, without thee is sweet!"

O thou! that on the top of Pindus sitt'st,
And with the ravishing music of thy lyre
Dost soothe the immortals, while thy influence sweet
Earth's favored bards confess, be present now;
Breathe through my soul, inspire thyself my song,
And upward bear me in the adventurous flight,
To the resistless theme—the BUCKWHEAT CAKE!

Let others sing of the bright golden ear
Whose farinaceous treasures, by nice art
And slight of hand, with store of milk and eggs
Formed into pancakes of an ample round,
Might please an epicure—and homebred bards
Enraptured descant on the tasselled maize
Worn in the bosom of the Indian maid,
Who taught to make the hoe-cake, (dainty fare,
When buttered well!) I envy not their joys.
How easier of digestion, dearer far,
And grateful too, beyond compare, the cake
All other cakes above, queen of the whole,
And triumph of the culinary art—
The buckwheat cake! my passion when a boy,
And still the object of intensest love—
Love lasting, full to overflowing, though
Unsated yet. My benison on thee,
Thou glorious plant! that, in life's gloomy wane,
Not only yieldest me the lively taste,
But furnishest the means of happiness;
Nay, more: for I possess in thee; at least,
One source of joy beyond the reach of fate.
Thou, when the sun "pours down his sultry wrath,"
Scorching the earth and withering every flower,
Unlock'st thy fragrant cells, and load'st the air
With perfumes, ever pleasing to the sense:
But when brown Autumn sweeps along the glebe,
Gathering the hoar-frost in her rustling train,
Thou captivat'st my heart! for then thou look'st
Of a rich purple tint, the sign most sure
That nature has performed her kindly task,
Leaving the husbandman to sum his wealth,
And thank the bounteous gods. O now be wise
Ye swains, and use the scythe most gently; else
The grain, plump and well-ripened, breaks the tie
Which slightly binds it to the parent stalk,
And falls in rattling showers upon the ground,
Mocking your future toil; or, mingled straight
With earth, lies buried there, with all the hopes
Of disappointed man! Soon as the scythe
Hath done its work, let the rake follow slow,
With caution, gathering up into a swarth
The lusty corn; which the prompt teamster next,
Or to the barn-floor clean transports, or heaps
Remorseless on the ground, there to be threshed—
Dull work, and most unmusical the flail!
And yet, if well prepared and beaten hard,
The earth affords a substitute not mean
For the more polished plank; and they who boast
The texture of their meal (the sober race
That claim a peaceful founder for their state,—
Title worth all the kingdoms of the world!)
Do most affect the practice. 'Tis a point,
Therefore, I will not here debate: enough
For me, if, when enveloped in a cloud
Of steam, hot from the griddle, I perceive
On tasting, no rude mixture in the cake,
Gravel, or sandy particle, to the ear
Even painful, and most fearful in effect.
For should the jaws in sudden contact meet,
The while, within a luscious morsel hid,
Some pebble comes between, lo! as the gates
Of hell, they "grate harsh thunder!" and the man
Aghast, writhing with pain, the table spurns,
And looks with loathing on the rich repast.

But now, his garners full, and the sharp air
And fancy keener still, the appetite
Inspiriting, to the mill, perched near some crag
Down which the foamy torrent rushes loud,
The farmer bears his grist. And here an art
But late discovered, must not be forgot;
For the white substance dense which is concealed
Within the husk, and which by process, quick
As simple, is transformed to meal, must first
Be clean divested of its sombre coat:
The which effected, 'tween the whizzing stones
The kernel beauteous descends, and swift,
To dust impalpable reduced, comes out
In whitened clouds. Let not the secret, thus
Divulged, be lost on you, ye delicate!
Unless, in sooth, convinced ye should prefer
A sprinkling of the bran; for 'tis alleged
By some that this a higher zest confers.
Who shall decide? Knowledge exact I may
Not boast, nor epicurean skill; but if
I am to be the umpire, then I say,
As did the Baratarian king, of sleep,—
My blessings on the man who first the art
Divine invented! Yes, let the pure flour
Be like the driven snow, bright to the eye
And unadulterate. So jovial sons
Of Bacchus, ere they drink, lift high the glass
To view the sparkling nectar, then quick toss
The clear, unsullied draught. But is there aught
In the inebriate cup, to be compared
To the soul ravishing object of my love,
The buckwheat cake? Let those who choose, still quaff
The madd'ning juice, and in their height of bliss,
Believe that such, she of the laughing eye
And lip of rose, celestial Hope, deals out
Among the gods! but O, ye powers divine!
If e'er ye listen to a mortal's prayer,
Still give me my ambrosia. This confers
No pains arthritic, racking every joint,
But leaves the body healthful, and the mind
Serene and imperturbed. A nicer art
Than all remains but to be taught; but dare
I venture on the theme? Ye Momus tribes,
Who laugh e'en Wisdom into scorn,—and ye,
Authoritative dames, who wave on high
Your sceptre spit, away! and let the nymph
Whose smiles betoken pleasure in the task,
(If task it be,) bring forth the polished jar;
Or, wanting such, one of a humbler sort,
Earthen, but smooth within—although nor gold
Nor silver vase, like those once used, in times
Remote, by the meek children of the sun,
(Ere tyrant Spain had steeped their land in gore,)
Were of too costly fabric. But at once,
Obedient to the precepts of the muse,
Pour in the tepid stream, but not too hot,
And pure as water from Castalian spring.
Yet interdicts she not the balmy tide
Which flows from the full udder, if preferred:
This, in the baking, o'er the luscious cake
Diffuses a warm golden hue—but that
Frugality commends and taste approves;
Though if a portion reasonable of milk
Should be infused, no harm can thence ensue.
Let salt impregnate next the liquid mass;
And then, into the deep, capacious urn,
With dext'rous hand, sift slow the precious dust,
Stirring, meanwhile, with paddle firmly held,
The thickening fluid. Sage Discretion here
Can best determine the consistence fit,
Nor thin, nor yet too thick. Last add the barm—
The living spirit which throughout the whole
Shall quickly circulate, and airy, light,
Bear upward by degrees the body dull.

Be prudent now, nor let the appetite,
Too keen, urge forward the last act of all.
Time, it is true, may move with languid wing,
And the impatient soul demand the cake
Delicious; yet would I advise to bear
A transient ill, and wait the award of fate:
The sluggish mass must be indulged, till, waked
By the ethereal spirit, it shall mount
From its dark cell, and court the upper air;
For, baked too soon, the cake, compact and hard,
To the dissolved butter, entrance free
Denies, while disappointment and disgust
Prey on the heart. Nor, O, do thou neglect
The auspicious moment! Thee, nor business then
Most urgent claim, nor love the while engross:
For, ever to the skies aspiring still,
The fluid vivified anon ascends,
Disdains all bound, and o'er the vase's side
Flows awful! till, too late admonished, thou
Shalt frantic see the miserable waste,
And, in the acid mass within, perceive
Thy hopes all frustrate. Thus Vesuvius, in
Some angry hour, mid flames and black'ning smoke,
From his infuriate crater pours profuse
The fiery lava—deluging the plains,
Burying in his course, cities and towns,
And fairest works of art! But, to avert
Catastrophe so dire, the griddle now,
Like steely buckler of the heroic age,

Elliptical or round, (and for not less
Illustrious use designed,) make ready quick
Rubbed o'er the surface hot, a little sand
Will not be useless: this all particles
Of dirt or of the former batch removes,
And renders easy the important work.
To gracefully reverse the half baked cake
With like intent, the porker's salted rind,
Moved to and fro, must lubricate the whole;
And this performed, let the white batter stream
Upon the disk opaque, till, silvered o'er,
Like Cynthia's, it enchants the thoughtful soul.
Impatient of control, the liquid spreads,
And, as it spreads, a thousand globules rise
Sparkling, but, like the bubble joy, soon burst
And disappear. Ah, seize the occasion fair,
Nor hesitate too long to turn the cake;
Which, of a truth, unsightly else must look,
And to the experienced, nicer palate prove,
Distasteful. See! 'tis done, and now, O now
The precious batch! spoogy, and soft, and brown—
Exhaling, as it comes, a vapor bland!
And with thee bring the butter, too, my boy,
Not rancid, fit for appetite alone,
Of coarsest gust, but delicate and firm,
And golden like the morn. Yet one thing more—
The liquid amber which, untired, the bee
From many a flower distils for thankless man;
For man, who, when his services are o'er,
The little glad purveyor of his board
Remorseless kills. But to the glorious feast!
Ye gods! from your Olympian heights descend,
And share with me what ye, yourselves, shall own
Is dearer than ambrosia. That, indeed,
May haply give a zest to social mirth,
And, with the alternate cup, exhilarate
The sons of heaven; but my nepenthe rare
Not only cheers the heart, but from the breast
Care, grief, and every nameless ill dispels—
Yielding a foretaste of immortal joys!

WOOL.

The Boston Courier makes the following remarks upon the article of wool.

Sales of more than 100,000 pounds of fleece and pulled wools have been made during the last ten days. Prices of fleeces are fully maintained, and the quantity of this description of wool in our markets, is smaller than we have before known it for many months. Pulled wools are more abundant, although there is no overstock of this article; sales of No. 1. Lambs, have been made during the week, at 56c. 8 months. There have been no addition to the former stock of domestic wool. The Logan from London arrived yesterday, brought 21 bags of foreign wool. Accounts from London of November 30, state that the wool trade was not so active as it had been, and that some descriptions of the foreign article, had declined from 1d to 3d per lb.

PRETTY WOMEN.

"Of all other views, a man may, in time, grow tired; but in the countenance of women, there is a variety which sets weariness at defiance."—The divine right of beauty, says Junius, is the only divine right an Englishman can acknowledge, and a pretty woman the only tyrant he is not authorized to resist.

The following toast was given by Judge Fiske, at the late celebration of the anniversary of the Charleston Forensic Club:

The Lawyer's *Declaration*—

Fee simple and a *simple fee*,
And all the *fees in tail*,
Are nothing when compared to thee,
Thou best of *fees*, Fe-*male*.

THE FARMER.

Baltimore, Friday, Jan. 21, 1831.

Agricultural Improvement.—Among the various plans for improving the agriculture of this country that have been suggested or adopted, we have seen none so efficient and so feasible as would be properly organised Boards of Agriculture, established and supported by state authority. Agricultural societies, instituted and supported by individuals, are most powerful engines; they have done much, and are capable of doing much more. But they want several attributes, absolutely necessary to the accomplishment of the great object in view. They lack permanency—they are dependent upon the caprice of individuals for support, upon the public spirit of individuals for energy, and upon the industry of individuals for efficiency;—all which being gratuitously bestowed, must, in the nature of things, make their very existence ephemeral; for even the most patriotic will tire even in well doing in the course of time. They lack the means—they are dependent upon individual contributions, for even the small amount of which they can boast in their treasury; and of course they can do but very little of the good of which the state of agriculture is susceptible. For the means and industry necessary to carry on their patriotic labours, all agricultural societies are indebted to a few active members; and these cannot be expected to continue such contributions very long. Hence, after a few years of usefulness, we see the most efficient societies begin to halt and ultimately to vanish. They lack that sense of individual responsibility, that spur to the flagging nag, absolutely necessary to the efficiency of all public services, to keep moving onward at times when individual propensities would lead them to idleness and the indulgence of ease. If it were a state Board of Agriculture, the officers and managers would have stated and specific duties to perform, which *must be* performed; and thus they would be permanent in duration and efficient in their operations; the funds would be provided from the state treasury, and thus there would be no deficiency; there would be a responsibility attached to the concern, which would ensure a regular and faithful performance of the duties. The plan of such an institution might be in its details the same as that of common societies, and differ in no other respect than in that of its being a state concern, managed by regularly appointed officers and supported by public funds. We are aware that objection will be made to the patronising of one interest with the funds of all; but, without admitting the soundness of the objection, even that might be obviated by collecting the sum necessary from the agricultural interest exclusively by way of a tax. But it is believed to be an error, that the interests of agriculture are exclusively confined to those engaged in it. There is no grade or profession of human life, that is not directly interested in the prosperity of agriculture, and hence it may be said to be the universal interest, and all other professions sub-interests. Agriculture can support itself independently of any other interest, while all other professions are dependent upon agriculture for the very aliment of their existence. Thus the appropriation of public money to the encouragement of agriculture, is not supporting one interest at the expense of others, but really patronising the public interest with public means. But even if we confine the support of the agricultural board to means to be drawn from agriculturists alone, the plan would be feasible and highly beneficial. A tax might be assessed on land and stock,—a very small one would do,—the proceeds of which should constitute a fund for the support of the institution. A central Board of Agriculture should be appointed, which should manage the concerns of the institution, hold annual fairs or exhibitions, award premiums and honors, and designate objects for improvement. In each county, a board of inspectors should be established to examine such objects as could not be laid before the central board, award county premiums and report to the central board; these should also make annual reports of the state of agriculture in their respective counties, noting such cases as were susceptible of improvement, and such improvements as had been effected, with a detail of the operations; from which reports, the central board should select proper objects for state premiums, and publish such parts as they should deem of public interest. Thus in the counties, a spirit of emulation would be excited, and comparisons of systems and practices would be instituted; and at the central exhibition, the results of the system in the several counties would be brought together and their several merits tested by comparison with their competitors. This would at the same time, collect and disseminate all the information existing in the state, and stimulate genius and skill to their utmost exertion. In this plan, we would have the premiums large, but guard them strictly against unworthy awards. They should be large, that the interest of competitors should be enlisted, and that efficient competition should be excited. They should be so large that the possessor of a county premium for the best managed farm, should consider it worthy of preservation in his family, or an object worthy of exertion; and that the possession of a state premium, should be considered not only valuable in a pecuniary view, but honorable in the highest degree to its possessor.

Of this plan, one of the most important parts would be an experimental farm, to be conducted by the central board, and on which all experiments that involved pecuniary risk, should be tried; this would make the loss light if the experiment failed, and would ensure the benefit to the whole agricultural community if it succeeded. This farm should be well stocked with horses, cattle, and other stock of the best blood, from which improved stock should be disseminated through the country. It should be the duty of the central board to procure every new plant and vegetable, and every animal, from foreign countries, that might be deemed suitable to the climate and useful, and propagate them from the experimental farm. This farm should be located in some central part, and the annual exhibitions should be held thereon, as well as all meetings of the board, and all its transactions. From this farm nothing should ever be sold, except its surplus agricultural products, and the proceeds of these should be added to the agricultural fund. It would approach nearer to the perfection of the plan, if an experimental farm were also added to it in each county, to which improved stock, &c. should be sent from the central farm, and thence distributed through the counties. This, however, would involve greater expense than is contemplated, and than would probably be at first advisable.

The only obstacle we are able to discover to this plan being carried into effect, is found in the too general hostility evinced by agriculturists themselves towards every thing which requires a deviation from the old beaten track. Very many of them would not only not contribute their small portion of pecuniary support to the plan, but would not adopt the improvements effected by it, till forced to do so by absolute necessity. These would oppose any and every plan, no matter how eligible, which should have for its object the improvement of their condition. It has been asked, why those who have the ability do not reason with such men, and convince them of the great advantages to be derived from adopting improved systems. The answer is obvious—being *"unbelievers in book farming,"* the press, the only medium through which they can be reached, is excluded from their houses. They will neither take an agricultural paper, read it when given them, nor believe in its contents if by chance they hear it read. We have seen old farmers who live not thirty miles from Baltimore express astonishment and exhibit marks of utter incredulity, at being told that there were threshing machines that would get out 3 or 400 bushels of wheat in a day; straw cutters that would cut 400 or 500 bushels of straw a day; corn shellers that would shell more corn with the assistance of two hands than twenty men could by hand, &c. So little did they know of what was really going on among the few agriculturists who have had the sagacity to perceive the absurdity of old practices and the wisdom to adopt improved systems, that they were utterly ignorant of the existence of these machines and many others of equally old standing. When these men were told that they ought to take some agricultural paper, their reply was, "we cannot afford it—we cannot even now get money enough to pay our debts"—considering, of course, the money thus expended thrown away! If it be remarked, that there are not many such farmers in our country, we reply, there are too many such. We will venture the assertion, that out of at least five hundred thousand farmers in the United States, there are not ten thousand who take regularly a professed agricultural paper. Against the ignorance and prejudices of such men the plan proposed would of necessity have to contend; and we confess that this obstacle seems almost insuperable. But the greater the darkness the more need is there of light, and the greater the evil the more necessity for the antidote. If a large portion of our farmers had already adopted proper systems of improvement, and were going on even handed with the spirit that is abroad upon the earth, there would be no necessity for a plan for ameliorating their condition. The state of agriculture just described, and it is sincerely believed to be a true picture, is itself the sole cause of the existing necessity for the plan above proposed; and, as greater things have been accomplished in the course of time, even this can be accomplished. All great things have their origin in small ones—a single mind first suggests, a few elaborate the idea into a system, and thence an empire starts into existence. Will not then the few highminded agriculturists of the land, take the thing in hand, and effect the great object of agricultural improvement? All that is wanting is unity of action, industry and perseverance, and the object will be accomplished.

Our agricultural friends are invited to a full and free discussion of the above plan, or any other having the same object in view, through the medium of our columns. As the Farmer has no local interest, the plan is not intended for any particular state, but is believed to be adapted to the wants of every state in the union. Let it be examined, and discussed freely; and if any of our correspondents can suggest a better one, let us have it—for we indulge no pride of opinion on the subject; and our only object being the attainment of the end in view, we are entirely indifferent as to the mode.

Prices Current in Boston, Jan. 14.

Apples, new, bbl. 1.50 a 1.75. *Beans*, white, bushel, .90 a 1.00. *Beef*, mess, bbl. 8.50 a 8 .75; cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 6.12 a 6.25; Genesee, 6.25 a 6.50; Rye, best, —- a ——. *Grain*, Corn, bu. .70 a 72; Rye, .75 a .78; Barley .62 a .69; Oats 40 a 42. *Hogs-Lard*, 1st sort new, lb. 9 00 a 10.00; *Pork*, clear, bbl. 17 a 20; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Seeds*, Herd's Grass, bu. 1.75 a 2.00 Orchard Grass, 3.00; Fowl Meadow, 4.00; Rye Grass, ——; Tall Meadow Oats Grass 2.50; Red Top .62 a .75; Lucerne, lb..33 a. 38; White Honeysuckle Clover, 25 a .38; Red do. Northern, 10 a 11; French Sugar Beet —— Mangel Wurzel ---- *Wool*, Merino, full blood, washed, .60 a 62; do. do unwashed, .35 a .42. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .52 *a* .58, do. half blood, .48 *a* .50; do. quarter, 38 *a* 42. Native, washed .33 a .37; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 45 *a* 50.

Prices Current in New York, Jan. 15.

Beeswax, yellow .19 a 21. *Cotton*, New Orleans .11 a .12; Upland, .9¼ a .10¾; Alabama, .10 a 12. *Cotton Bagging*, Hemp, yd. .18 a .20; Flax 12 a 16; *Flax*, American, 7 a 8.-----*Flaxseed*, 7 bush. clean —— a —— *Flour*, N. York, bbl. 6.12½ a ——; Canal .6.25 a 6.50; Balt. Hwd. st. 6.25 a ——-; Rh'd. city mills —— a-——; country, 6.12½ a ——; Alexand'a, 6.00 a 6.25; Fredericksburg —— a 6.00; Petersg. 6.00 a 6.12½; Rye Flour, 4.00 a ——; Indian Meal, per bbl. 3.25 a 3.50; per hhd. 14.75 a 15.00. *Grain*, Wheat, North, —— a ——; Vir. 1.20 a 1.25; Rye, North, — a —; Corn, Yel. Nor. .64 a 65; Barley, — a 78; Oats, South and North, .30 a .40; Peas, white, dry, 7 bu. –. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.75 a 9.00; prime 5.75 a 6.25; cargo 4.50 a 4.75; Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 8½. a .9; Pork, mess bbl. 13.75 a 14.25; prime 10.00 a 10.50.

Prices Current in Philadelphia, January 15.

Bees-wax, yellow .20 a .21½; *Beans*, bushel .100 a 1.12½ *Beef*, mess 10. a 10.50, prime 8 a 8.50, cargo 7; *Butter*, No. 1, 8½ a 9, No. 2, 6. a 6½; *Cotton*, New Orleans 12 a .13; Mobile 10½ a 12; Tennessee 11 a 12, Alabama 11 a 12; *Feathers*, South. .35 a .-—, West. .34 a .35; *Flax* .6 a .7. *Flour*, sup. 6.00 a 6.12½; fine, 5.75 a -Rye 3.75 a 4.00 Corn meal, bls. 2.95 a —-, hds. 13.50 a 13.75; *Flaxseed*, cask ——; bu. 1.45 a 1.50; *Grain*, Wheat 1.15 a 1.20 Rye 60 a 62, Corn l. c. white, 53 a .55, l. c. yellow, 55 a .56, u. c. round, 60 a 62; Oats .30 a .32; Barley, Pa. .75 a .80; do. East. 87 a 90; black-eyed Peas .40 a .50. *Hams*, Jersey 11. a 12½, Virginia 10 a 11, Western .10 a 10½. *Hemp*, 225 a 230; *Lard*, .8½ a .9½; *Oil*, linseed, 80 a 82. *Pork*, mess, 13.50 a 13.75, prime 12.00 a —; cargo 10.00 a —. *Rice*, 3.— a 3.25; *Tobacco*, Kentucky .3½ a .6; Vir. .3 a .5.

FRESH LONDON GARDEN SEEDS.

The subscriber has just received from London a small supply of the very best seeds of the following kinds, growth of 1830, and raised by one of the first horticulturists in England:—Cabbage, Early York, Early George, Wellington, Sugar-loaf, Ox Heart, Bonneuil, late German or Dutch, Red Head, curled green Savoy; Dutch Asparagus, blood and yellow Beet, Nasturtium, Long Red and Yellow Carrot, Solid Celery, Curled Endive, Cauliflower, (early and late,) Brocoli, (white and purple,) White Dutch Cucumber, Long Green do. Windsor Beans, Long Pod do. Prickly Spinach, Early Head Lettuce, (several other kinds,) melions, the best kinds known in Europe, Onion, white, pale and deep red, Long Parsnip, Curled Parsley, six weeks' Peas, Tomatoes, Early round Turnip, round Dutch yellow Turnip, early long rose coloured Radish, early rose coloured Turnip Radish, &c.; altogether forming one of the most choice assortments of seeds ever imported. Those who wish to obtain such seeds for spring planting, are advised to send in their orders early. Orders to the amount of five dollars can be sent by wagons to any part of the western country, and by water to any part of the southern states. GIDEON B. SMITH.

Farmer Office.

Western Tiller, Cincinnati Liberty Hall, Nashville Banner, Richmond Enquirer, Charleston Courier, will please publish the above once a week, three weeks.

AGRICULTURAL WAREHOUSE AND SEED-STORE.

The Subscriber desires to express his grateful acknowledgments to a generous public, for their liberal patronage,—with assurances, that no exertion on his part shall be wanting, in future, to render his establishment an advantage to the public, which has been considerably increased during the present year. He is the only Agent in the city for Gideon Davis, and has on hand a full assortment of his improved Patent PLOUGHS—the increased demand for which, proves the great perfection to which he has brought that useful implement; and he is at all times prepared to furnish the CASTINGS for said Ploughs, to supply the place of those worn out.

He has also on hand, a variety of Improved PLOUGHS suited to the variety of soils; and left-handed ploughs—together with a general assortment of IMPROVED AGRICULTURAL IMPLEMENTS, and wove wire to suit the various purposes for which that article is used. The Subscriber's Patent CYLINDRICAL STRAW CUTTERS, he believes, have never been surpassed in any country; and desirous to bring them into more general use, he has reduced the price $5.—He will also receive orders for THRESHING MACHINES, constructed on the Spike principle, which he believes the best now in use. Early application should be made by those wishing to procure them for the coming season, as it requires time to procure suitable materials; and as machines of this description built in a hurry seldom give satisfaction; he has one on hand finished.

☞ All communications by mail (post paid) will receive prompt attention. J. S. EASTMAN,

No. 36 West Pratt street, Baltimore, between Hanover and Charles streets.

BALTIMORE PRICES CURRENT.

Baltimore Market.—The navigation being closed by ice there is nothing doing of consequence. The wagon price of Howard street flour is $5.62½. For city mills flour $5.62½ was offered yesterday, but holders generally decline selling at that price. There is no wheat in market, and our quotations are merely nominal, though they are supposed to be about the rates which would be given. Beef continues to improve. As there is no wood at the wharves we omit quotations —from the yards, oak was selling yesterday at $5.

Tobacco.--Seconds, as in quality, 3.00 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week are 63 hhds. Maryland; and 7 hhds. Ohio—total 70 hhds.

Flour—best white wheat family, $6.50 *a* 7.00—super. Howard-street 5.75 *a* ——; city mills, 5.62½ —Susquehanna, —— *a* ——; Corn Meal, bbl. 2.25 Grain; red wheat, 1.10 *a* 1.20; white do. 1.20 *a* 1.30 Corn, white, 68 *a* 65-— yellow 63 *a* 65-—-new white 63 *a* .65--yellow 68 *a* 65--Rye, .62 *a* .—-Oats, .30 *a* 31, Beans, 90 *a* 1.00-Peas, 50 *a* 60-Clover seed 6.50 *a* 7.00 Timothy, 2.00 *a* 2¼.-—Orchard Grass, 1.25 *a* 1.50—Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½ Flaxseed -— *a* 1.25—Cotton Va. 9½ *a* 10½-Lou. 11½ *a* 12½ —Alab..9½ *a* .11—-Tenn..9 *a* .10—-N. Car..9 *a* .10-— Upland 10 *a* 11----Whiskey, hhds 1st p 28 *a* —-; in bbls 29 *a* 29½—Wool, common, unwashed, lb. 15 *a* .16-— washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* --; Country, dew-rotted, 5. *a* .6c.- lb. water-rotted, .6 *a* 8c.—Fish. Shad Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.00 *a* 4.25-- Mackerel, No. 1, 6.00, *a* 6.12½--No. 2, 5.50 *a* 5.62½-No. 3 3.43¾ *a* 3.50; Bacon hams Balt. cured 10c.—Feathers, 34 *a* 35-Plaster Paris, cargo price per ton, 4.25 *a* 4.31¼, ground, 1.37½ *a* —- bbl.-Iron, gray pig for foundries per ton 80.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00.—Prime Beef on the hoof, 5.50 *a* 6.25.

Agents for the American Farmer.

The following persons are authorised to act as Agents for the American Farmer in their several places of residence:

Boston,	John B. Russell, *N.E. Farmer Office.*
New-York,	J. H. Gourlie, *at the Post Office.*
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AGRICULTURE.

ON THE USE OF LEAVES AS MANURE.

Lucky Hit Farm, near Whit Post,
Frederick Co. Va.

Mr. Smith:

As I believe it is the first time I have ever troubled you with my signature on any subject pertaining to agriculture, other than reports on the improvement of sheep or cattle, and your columns now offer so great an inducement to the scribbler to touch occasionally on some of the most prominent and important points of husbandry, I beg leave here to offer you some remarks and facts on one of them so intimately connected with the production of the soil, and so almost universally essential to its improvement and perfection as to be interesting to all. I am almost ashamed to say, as it has ever been my doctrine, that all successes, and every thing believed to be useful in our way, should be communicated to some agricultural paper, that the following is an extract from one amongst other papers penned for the Farmer, and thrown aside for years past, fearing their want of plan and brevity would render them unacceptable and troublesome to the former Editor, whose leisure would not permit him to separate the wheat from the chaff, so multiplied were his concerns, and so deservedly popular, that it were impossible for him to examine the many communications to the Farmer, and have that necessary rest and recreation which the soul and body require. The exclusive devotion of its present Editor to the peculiar interests of the Farmer will enable him to classify, and embody such a system of agriculture, as will not only meet the views of the practical and enquiring reader, but be highly interesting to the most intelligent—let it be remembered, that the American Farmer already is a respectable library, and is to be, with the support of the American public not a little honored by foreign friends, a work comprehending a series of facts and information in the youthful progress of our republic, to shew our posterity some centuries hence that we have not been toiling for mere self-aggrandisement; but have been labouring with the aid of virtue and science to lay the most solid foundation for their glory and happiness. If it be suggested that a continual repetition of agricultural subjects will tire and be uninteresting, a moment's reflection, will unveil the unnatural and ungrateful supposition: taste, interest, and sincere desires will achieve much by introducing into its theory new beauties. Can it possibly be, that our mother earth, teeming as she does with vegetable and animal creation, with her rich stores reaching into her utmost recesses, shall fail to gratify with a boundless variety, the most versatile or philosophic mind? Original domestic communications will increase and improve when it is seen that the American Farmer is pursuing a strict line of duty, and sedulously avoiding whatever would have a tendency to relax the purest moral habits, or attract the mind from a course of industrious or elegant agriculture. I beg you will improve, sir, by anticipation, on the recommendations here *intended;* I feel myself entirely unequal to the task. The materials, composition, and application of manure in the plainest practical way, but chiefly the great value of leaves as an auxiliary, shall occupy our attention for a few moments, divested of any abstruse or philosophical reasoning, commonly called theory, and varying with almost every writer who gives an opinion. There is scarcely a subject on which farmers change oftener and differ more than on making and applying manure. One advocates in the most obstinate terms this way—another that—a third, and fourth, some other mode—but we shall follow none of them in their varying opinions, but briefly remark that he who dogmatically declares there is but one season, or one consistency to carry manure on the land, is venturing beyond a prudent opinion. In the spring, when the great mass of manure should be hauled on the corn land and ploughed under the furrow, because of its unfermented state—it is no reason that the same process should be pursued in autumn when manures are better decomposed and in a state to harrow in and mix intimately with the roughly ploughed wheat lands—the latter mode is most intimately connected with the material most abundant for making it, which I shall chiefly dwell on. It is often said by the derider of book farming, (and be assured, Mr. Editor, I value the polished essayist without experience as little as any one) that you *have only to follow* the industrious and persevering in order to complete success—make as much muck as you can carry out, and plough in—it is the quantity not the skill and manner. We deny the position as being too egregiously wrong to go down in this age of intellectual improvement and reform. There is nothing more fallacious—ignorance mingled with long established error—a most wasteful economy—misusing, and abusing, what nature has provided for her support in renewed efforts to produce the plants of the earth, and expects the skill and knowledge of man to bring to perfection for his own benefit, and her decoration and beauty. One half the manure well composed and judiciously spread, would be equal in its effects to double the quantity illy put together, and unequally disposed of in too large and unbroken masses: for instance, throw quantities of any kind of straw or cornstalks on your farm pens too thick to be decomposed in due season; your precious materials will be wasted in their removal, and will operate on the soil in the most unfarmerlike manner, in entangling the harrow and ploughs, &c.

On the other hand, if you pen your cattle without a due preparation of leaves, straw, &c. there will be a filthy and extravagant waste of manure—the management of the summer cow pen is more laborious than that of the winter—but its comparative contents cover much more ground advantageously, because of its more general decomposition, and consequent facility to be opened on the surface. The great importance of leaves as a manure has frequently been alluded to in the Farmer, but never recommended in such a manner as to furnish serious ground for a calculating and practical farmer to go to work—the nearest approach by a New England farmer in collecting them for the barn-yard, was by throwing them into a tent and thence into the wagon—a plan so far removed from efficiency as to damp the enterprise of nine out of ten who would attempt it. I have been successfully engaged in converting them into manure for several years past, under the feet of horses, cattle, sheep, and hogs, and find the following prominent reasons preceding others for their use, and for the attempt to promulgate this essay.

1st. A belief that there is a general neglect of the use of leaves as a material for manure.

2nd. The almost universal use which might be made of them.

3rd. Their importance as a material to keep up a system of operations for a seasonable supply of manure.

4th. Their salutary influence in affording a comfortable bed for all kinds of stock, particularly for hogs; freeing them from the mange—and their valuable substitution when straw is scarce for ice-houses, &c.

5th. The importance of their removal from the fence corners in case of fire, and to preserve the rails from rotting.

6th. Their qualities as a material for manure, as tested by experience in its application generally, but particularly in its adaptation to the wheat crop in spreading it broadcast on the rough fallow, and harrowing it in before seeding, &c. Some object to the use of leaves from the fear of injuring the forests—it will be proper to shew why there is no reason for such apprehension. If the Scripture truth with regard to the falling of the tree, was verified in relation to the leaf, there might be an argument urged in their removal, that Peter was robbed to pay Paul—but it is certainly not the case—the tree lies where it falls, but the leaf is driven by the most prevalent winds into some deep valley, the lee side of declivities, or into the corners of a fence where they moulder into dust, rendering no service to man or beast, and benefiting only a portion of soil which may never be called into cultivation—but the habit of permitting leaves to bank up against fences is highly injurious to them, evidently producing premature decay. If by any prudent forethought or arrangement the leaves could be detained just where they fall, which may in some degree be done by an attention to the clearing of a plantation in reference to its altitude and exposure to the most prevalent winds, their removal would never be recommended, because it is rational to conclude that the forest requires a return of its foliage, however abundant, to keep up a supply of food for its powerful growth and absorption, and detain with greater security the moisture so much to be valued in our dry climates and waving lands; but it is enough for us to know here, the undoubted fact, that millions of tons of leaves are annually deposited in some place and lost to all intents and purposes for the want of either a proper knowledge of their useful application, or the skill and industry to haul them to the farm-pen. Our reason and observation would be given us in vain, our "talent" would be hidden in the earth, if the neglect of some of the most apparent opportunities of employing the resources of nature to advantage were permitted.

The process of supplying the farm-yard with leaves is as follows: After designating the ground always a prudent distance from the roots of trees, which might possibly be injured by their removal, rake them up into winrows from eight to ten feet wide, then with some kind of plough cultivator, or harrow, scarify the earth on each side lightly, the width of the leaf-bed; with the back of hand rakes shove the loose earth to the leaves, and with shovels cover them an inch or so deep. This operation should be performed when the leaves are wet and the earth light and loose. This preparation should be made in the spring months to an extent of the probable demands of the farm-pen for the season before you, but may be done at any time most convenient to the farmer if the leaves are not too dry. The importance of having a sufficient supply of leaves ahead, is, that when thus prepared, they may be transported at any time whether wet or dry to the farm-yard, which should be done at periods of from four to six weeks apart, and spread about six inches deep, as uniformly as possible to receive the animal manure—double this thickness will not be too much for an early winter preparation mingled with straw and cornstalks—in the spring the leaves will be incorporated with the great mass of manure. The process of hauling them to the farm-pen is important to be considered, as many have laughed at the idea, saying you might as well attempt to haul feathers in any open cart; and it is not much to be wondered at, under the different plans and systems attempted. Large ox carts discharging their loads by a tilt, or one horse carts, are by far the most expeditious mode of conveyance, with very high sideboards, &c. four pronged forks, with the teeth slightly curved and flatted, composing a frame about two feet square, are used to lift the leaves, and will raise as many as a man can conveniently heave into the cart, weighted as they are with the adjoining soil, and kept continually wet, or damp, by the covering of earth;—four hands are employed to a large ox cart, two with forks, one with a rake to keep the leaves and earth neatly pushed up, the fourth in the cart to receive and tread them firmly down. One ton, more or less in proportion to the quantity of earth mixed with the leaves, and their weight by reason of the season, may be carried at each load in an ox cart or wagon to the farm-yard—the speed with which this loading is done, and consequent filling up of the farm-pen is truly encouraging to one who looks to the improvement of his soil, through a generous and regular system of manuring. As an evidence that I have given this mode of increasing the manure bank a sufficient trial, permit me to say that I have in the course of a year used more than one hundred loads. But once for all, let it be kept in mind, that in the pursuit of this system of increasing the stock of manure, no risk should be run, detrimental to the forest, for all its alluring advantages, one of which has appeared very conspicuously in the last autumn, and although it is a fact which the theory of some will combat, it nevertheless stands as an evident confirmation of its truth. Six or seven acres of land was covered with 130 ox cart loads of this leaf manure, and a fraction less than seven gallons of wheat sowed per acre—it appears to be abundantly thick, and by comparison with experiments made last year, no doubt will prove so in time of harvest—on the same ground, without the aid of this well pulverised manure, ten or twelve gallons of wheat per acre would have been required to have produced the same verdure and apparent thickness; and as to its ultimate production there is no doubt of the great superiority of the thin sowing and manuring. There is then a saving of from three to five gallons of wheat per acre in consequence of the manuring. But it will be urged by many an industrious farmer, that there is not time to collect the materials for this additional stock of manure, and haul it out in proper place, cultivating at the same time the usual quantity of land. If this really be the case, unhesitatingly let it be recommended that a few acres be detained in grass in order to afford opportunity for the important work of manuring. At this time of day it would appear superfluous to recommend or exhort our farmers to the accumulation or application of manure, since the practice of ages, and our every day experience tells us it is indispensable; but to investigate the value, and recommend the more liberal use of a much neglected material amongst the varieties presented to our choice, can scarcely be doubted as important to the improving condition of the farmer. A brief hint of another mode of using leaves may be important to some—carry them immediately on your knoles to cow-pen, at from ten to twenty loads per acre—double the ground may be gone over in the season, and more effectually manured, as half the period will suffice to keep the pen in one place—the leaves preserve their moisture, and save much of the manure from exhalation. It may be well, Mr. Editor, now to come to a close—your patience and my pursuits should be considered, though a two foot snow permits the farmer to do but little more than feed the stock and sled[*] a little wood. But be assured that if this leaf subject were done justice to, supported by numberless remarks connected with it, too long for one essay, the practice and science of manuring might be benefited beyond ordinary calculation, and far beyond any feeble attempt of your friend and humble servant,

RICHD. K. MEADE.

(From the Transactions of the London Horticultural Society.)

ON THE CULTURE OF THE POTATO.

By Thomas Andrew Knight, Esq. F. R. S. &c. President.

Whatever may have been the amount of the advantages, or injury which the British Empire has sustained by the very widely extended culture of the potato, it is obvious, that under present existing circumstances, it must continue to be very extensively cultivated; for though it is a calamity to have a numerous population who are compelled by poverty, to live chiefly on potatoes, it would certainly be a much greater calamity to have the same population without their having them to eat.

Under this view of the subject, I have been led to endeavor to ascertain by a course of experiments, the mode of culture by which the largest and most regular produce of potatoes, and of the best quality, may be obtained from the least extent and value of ground, and having succeeded best by deviating rather widely from ordinary rules of culture, I send the following account of the results of my experiments. These were made upon different varieties of potatoes; but as the results were in all cases nearly the same, I think that I shall most readily cause the practice I recommend, to be understood by describing minutely the treatment of a single variety only which I received from the Horticultural Society, under the name of Lankman's Potato.

The soil in which I proposed to plant, being very shallow, and lying upon a rock, I collected it with a plough into high ridges of four feet wide, to give it an artificial depth. A deep furrow was made along the centre and highest part of each ridge, and in the bottom of this whole potatoes, the lightest of which did not weigh less than four ounces were deposited, at only six inches distance from the centre of one to another. Manure, in the ordinary quantity was then introduced, and mould was added, sufficient to cover the potatoes more deeply than is generally done.

The stems of the potatoes, as of other plants, rise perpendicularly, under the influence of their unerring guide, gravitation, so long as they continue to be concealed beneath the soil; but as soon as they rise above it, they are to a considerable extent under the control of another agent, light. Each inclines in whatever direction it receives the greatest quantity of that fluid, and consequently each avoids and appears to shun the shade of every contiguous plant. The old tubers being large, and under the mode of culture recommended, rather deeply buried in the ground, the young plants, in the early part of summer, never suffer from want of moisture; and being abundantly nourished, they soon extend themselves in every direction till they meet those of the contiguous rows which they do not over-shadow on account of the width of the intervals.

The stems being abundantly fed, owing to the size of the old tubers, rise from the ground with great strength and luxuriance, support well their foliage, and a larger breadth of this is thus, I think, exposed to the light during the whole season, than under any other mode of culture which I have seen; and the plants acquire a very large size early in the summer, the tubers of even very late varieties, arrive at a state of perfect maturity early in autumn.

Having found my crops of potatoes to be in the last three years, during which alone, I have accurately adopted the mode of culture above described, much greater than they had ever previously been, as well as of excellent quality, I was lead to ascertain the amount in weight, which an acre of ground such as I have described, the soil of which was naturally poor and shallow, would produce. A colony of rabbits had, however, in the last year, done a good deal of damage, and pheasants had eaten many of the tubers which the rabbits had exposed to view; but the remaining produce per acre, exceeded five hundred and thirty-nine bushels of eighty-two pounds each, two pounds being allowed in every bushel on account of a very small quantity of earth which adhered to each of them.

The preceding experiments were made with a large and productive variety of potatoes only, but I am much inclined to think, that I have raised, and shall raise in the present year, 1828, nearly as large a produce per acre of a well known small early variety, the Ashleaved Kidney Potatoes. Of this variety, I selected in the present spring, the largest tubers which I could cause to be produced in the past year; and I have planted them nearly in contact with each other in the rows, and with intervals, on account of the shortness of their stems, of only two feet between the rows. The plants at present, display an unrivalled degree of strength and vigor of growth, arising from the very large size (for that variety) of the planted tubers; and as large a breadth of foliage is exposed to light by the small as could be exposed by a large variety; and as I have always found the amount of the produce under any given external circumstances, to be regulated by the extent of foliage, which was exposed to light, I think it possible that I shall obtain as large or nearly as large a crop from the small variety the present year, as I obtained from the large variety in the last. I have uniformly found that to obtain crops of potatoes of great weight and excellence, the period of planting should never be later than the beginning of March, [in England.]

Postcript.

March 23, 1829.—Somewhat contrary to my expectations, the produce of the small early potatoes exceeded very considerably that of the large one above mentioned, being per acre, 665 bushels of 82 pounds. It is usually calculated by farmers, that eighty pounds of potatoes though eaten raw, after they have begun to germinate, will afford two pounds of pork; and I doubt much if the haulm and the whole of the manure made by the hogs were restored to the ground, whether it would be in any degree impoverished. I am not satisfied that it would not be enriched, an important subject for consideration in a country, of which the produce is at present unequal to the support of its inhabitants, and which produce I confidently believe and fear, is growing gradually less while the number of its inhabitants is rapidly increasing.

THE FREDERICK SHORT-HORNS.

We have on one or two occasions alluded to the efforts of our enterprising and persevering fellow citizen, R. K. Meade, Esq. to improve our Virginia stock of cattle, and we last week published a communication from him, giving some of the results of his many years' application and experience. The interest and importance of the subject, to a large class of our readers, will justify a few additional observations.

If we mistake not, Mr. Meade, during the existence of the late Agricultural Society of the Valley, strongly urged the establishment of stock farms for the supply of fine animals of different kinds, and offered to part gratuitously with some of the best of his own, on condition that the persons receiving them would pledge themselves to seek to improve them. If the best efforts of this gentleman have failed in their influence on others, he at least must have the pleasure of reflecting on his disinterestedness, while at the same time he is in the receipt of the benefits which might have accrued to many.

We have heretofore mentioned the sale of one calf to a gentleman on James river for $100; and we have recently understood that the demand for the same stock is greater than Mr. M. can supply. This demand is mostly from the lower parts of our state, where the soil has been exhausted by tobacco cultivation, insomuch that the occupants have not only to purchase much of their clothing, but not unfrequently their breadstuffs. We have no practical knowledge of agriculture; but it occurs to us that our lowland brethren might be benefited by a partial change in their husbandry,—a conversion of a portion of their worn-out lands into grass fields, for the gradual introduction of the best breeds of cattle and sheep—few in number, but valuable in quality. It seems to us that a proper preparation of grasses, however, must be of the first importance; for if a competent foundation be not thus laid, suited to the soil, previous to the introduction of fine animals, disappointment and disgust must inevitably ensue, and the day of reform postponed to a still later period—a day which we of the west would hail with joy, as improvements in agriculture would gradually lead to other and not less important changes—such, for instance, as the reduction of that kind of population which has on them an immediate deteriorating influence, and on us an indirect effect, retarding the progress of both in the various arts which lead to our general prosperity, political unity and happiness. Nor can we but suppose that if our southren brethren generally were to embrace a system looking to the improvement of a portion of their land by grass and stock, they would not only find in it an essential benefit, but feel less reluctance in the support of laws intended for the good of the whole.

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[*] The writer has the only one he knows of in this part of the country.

But we are far from supposing that our lowland friends are the only ones to be benefited by an attention to their domestic animals. There is scarcely any part of our country that has not neglected that part of their husbandry; and we hope the success of Mr. Meade will have the effect of stirring up our farmers generally, even though they should not have opportunities of improvement from what are called blooded stock. There is no knowing what may be effected by judicious selection with an in-and-in breeding to a certain extent.

We most heartily wish Mr. M. final success in his schemes of improvement, as we understand he is adopting measures and making such arrangements as will employ his resources, principally, in the breeding and introduction of the finest stock, a department in husbandry to which he has always been passionately attached. [*Winchester Republican.*

HORTICULTURE.

(From the New York Farmer.)

An Address delivered before the Albany County Horticultural Society, at its Anniversary Meeting, on Tuesday, September 7th, 1830. By Dr. T. Romeyn Beck, M. D.

Mr. President, and Gentlemen
of be Horticultural Society:

I have acceded to the request of your respectable committee, solely from a wish to aid with my poor endeavours the cause of this society. None can regret more than myself, that the judicial duties of my learned friend, (the Hon. A. Conkling, 1st Vice-President,) prevent him from performing the task now assigned to me; and I must, at this early period ask your most favourable construction of the brief and necessarily imperfect observations that I shall offer. What of mature life I have passed through, has mostly been in the retreats of the closet, and neither time nor opportunity has been afforded for more than an occasional acquaintance with the interesting subjects embraced within the purvey of this society. While, therefore, I may appreciate them as highly, and admire them as sincerely as those more conversant, you will pardon me if I display, it may be, the enthusiasm, but more probably, the ignorance of the novice.

The objects for which we are associated are far from holding an inferior rank among legitimate pursuits. They are intimately connected with the progress of civilization, and they minister a thousand ways to the comfort, the refinement and the happiness of the human race. The eye is charmed with the beauties of the vegetable world, and its rich productions; and the heart is delighted with the rapidly improving and increasing quantity of articles intended for the sustenance of man.

By a wise and impartial decree of the Almighty, every country appears to have received only a certain proportion of vegetable as well as mineral riches. The command went forth that man should cultivate and subdue the earth, and, by thus doing, he had, during successive ages, increased their value as well as their number. In nothing is this more striking than in the fruits which now constitute the chief ornaments of our gardens. As far as our information, drawn from the records of various nations, extends, they appear in early times to have been thinly scattered and imperfectly produced. The peach is deemed a native of Persia, the plum, the cherry, the apple and the pear, are traced to Armenia, the fig is derived from Syria, the apricot from Epirus, and the pomegranate from Africa. Northern Europe, including England, in the ages previous to the invasion of the Romans, only possessed wild fruits, such as rude and uncultivated nature gave it—the crab, the sloe, the hazel-nut and acorn. Even the olive, which now adorns Italy, and furnishes one of its staples, did not exist in that country until some ages of its history had elapsed. When Lucullus returned from his triumph over Mithridates, he brought with him as one of the trophies of victory, a cherry tree laden with fruit, and this product of the province of Pontus adorned his entry into Rome. Now trace the progress of civilization, and of extended intercourse between nations. In less than one hundred and twenty years thereafter, according to Pliny, other lands had introduced them, even as far as Britain, beyond the ocean. The empire of the Romans, says the historian of its Decline and Fall, filled the world. Beyond its frontiers, the anxious view of its slave could discover nothing except the ocean, inhospitable deserts, hostile tribes of barbarians, or dependent kings. If its despotism was thus overshadowing, if cruelty and rapacity marked its dominations, we are at least indebted to it for certain consequences dependent on its unrivalled magnitude. The arts, the knowledge, and the improvements of the capital, were diffused with an impartial and liberal hand over its subject dependencies, and the vegetable riches of one conquered country soon became domesticated in another.

When the parts of this mighty confederacy fell asunder from the attacks of its barbarian invaders, and numerous new sovereignties were formed, another power supplied the place of the ubiquity of universal domination—a power more benignant in its operation, doubly blessed in its progress, and happily more permanent in its effects. The diffusion of christianity, by its early missionaries, promoted the culture of the arts and sciences, as well as the mild pursuits of domestic life; and even in the middle ages, when war was the sole employment of the higher classes, and rude unceasing labour that of their miserable dependants and slaves, the ecclesiastics not only kept alive and continued the knowledge of the ancient languages, but in their various retreats, are to be deemed the most efficient promoters of the science and practice of horticulture. "Whoever," says an elegant writer, "has seen an old abbey, where for generations destruction only has been at work, must have almost invariably found it situated in one of the choicest spots, both as to soil and aspect; and if the hand of injudicious improvement has not swept it away, there is still the "*Abbey garden.*" Even though it has been wholly neglected, though its walls be in ruins, and its area produce but the rankest weeds—there are still the remains of the aged fruit trees—the venerable pears—the delicious little apples, and the luscious black cherries. The chestnuts and walnuts may have yielded to the axe, and the fig trees and vines died away; but sometimes the mulberry is left, and the strawberry and raspberry struggle among the ruins." "There is a moral lesson," (he adds,) "in these memorials of the monastic ages." The Monks, with all their faults, were men of peace and study, and these monuments show that they were improving the world, while the warriors were spending their lives to spoil it. In many parts of Italy and France, which had lain in desolation and ruin from the time of the Goths, the Monks restored the whole surface to fertility; and in Scotland and Ireland, there probably would not have been a fruit tree till the sixteenth century, if it had not been for their peaceful labours."

It is not necessary to trace minutely the progress of horticulture, subsequent to the period now noticed. A rapid survey will be sufficient. With the revival of letters and the invention of the art of printing, a new era opened upon Europe. New worlds were discovered, and the influence of commerce began to be every where felt. As the intercourse between nations became more frequent, an interchange of their productions necessarily followed. Northern Europe grew familiar with the riches of tropical countries, and the desire naturally followed of domesticating them on its own soil. Of all the nations in that part of the eastern continent, Holland doubtless deserves the first notice, as the pioneer in naturalizing exotic fruits and vegetables, and England followed with an equal, and in later days, a surpassing ardor. Science was made tributary to their efforts. A plant that lived only beneath the genial influence of a vertical sun was transported to a far northern latitude, to flourish in a temperature produced by artificial means.

The hot-house thus became, in the hands of the wealthy merchants of Holland, and the nobility and gentry of England, an important instrument in promoting the diffusion of these interesting productions. Gradually it was noticed, and the discovery was no less fortunate, than it is remarkable, that many tropical fruits accommodate themselves to their adopted climate, and that they survived the changes of a northern winter. They were then propagated in a wider range, and in many instances, such has been their diffusion, that they are deemed native equally with the original productions of the soil. I may mention as illustrative of this, among esculents, the potato, a native of South America, among fruits, the pine apple, and among flowers, the China rose.

It is evident from these facts, that the passion for foreign productions, though formerly often ridiculed as a mere desire for the display of wealth, has yet proved of general benefit to all. But we must not graduate every thing to the mere standard of utility. The eye, too, deserves to be gratified with a view of the works of nature. The more we extend our acquaintance with its wonders, the more are our minds elevated by a contemplation of their variety and beauty. And where can these be seen more brilliantly than in the hot-house and conservatory?

> "Who loves a garden, loves a green house too,
> Unconscious of a less propitious clime,
> There blooms exotic beauty, warm and snug,
> While the winds whistle and the snows descend,
> The spiry myrtle with unwithering leaf,
> Shines there and flourishes. The golden boast
> Of Portugal and western India there,
> The ruddier orange and the paler lime
> Peep through their polished foliage at the storm,
> And seem to smile at what they need not fear.
> ———Those Ausonia claims;
> Levantine regions these; the Arozes send
> Their jessamine; her jessamine, remote
> Caffraria—foreigners from many lands,
> They form a social shade, as if convened
> By magic summons of the Orphean lyre."
> [Cowper.

During the last thirty years a powerful impulse has been given to horticulture, by the establishment of societies. Among the earliest and most distinguished of these, is the Horticultural Society of London. It was founded in 1805, through the spirited exertions of Sir Joseph Banks, Mr. Knight and several other eminent naturalists. It embraces among its members much of the talent and wealth of Great Britain, and both have been liberally bestowed in promoting and fostering its interest. It has greatly extended the taste for gardening by collecting in its noble establishment at Chiswick the rare productions of every climate—by exciting competition among the intelligent and patriotic to excel in raising various fruits and vegetables, and above all, by numerous and well devised experiments, to increase their variety, as well as ameliorate their quality. It has sent out its scientific missionaries to every quarter of the globe. They have been with us and examined the products, both of the eastern and western portions of our continent.

Scotland was not slow in following so praiseworthy an example. Though that country is not blessed with so genial a climate, yet for many years it has furnished the most and the best practical gardeners to the British empire. And the cause of this is evident. The asperities of a northern temperature were to be combatted and overcome by greater skill and more patient industry. Rules, often to be only learnt by long experience, were to be acquired, for preserving and propagating plants which needed the kindliest care; and it is worthy of all commendation, as well as of repeated note, that these have succeeded in enabling that country to equal if not to excel, more southern ones in producing the choicest fruits, and the most delicate vegetables.

A venerable man of the medical profession, the late Dr. Duncan, is justly deemed the founder of the Caledonean Horticultural Society. They have not yet established a garden similar to that of their countrymen in England; but its want is in a measure compensated by the numerous private establishments that abound in the vicinity of the capital, and by the munificence of many of the nobility. Not many years since, a committee of its members visited Holland and Flanders, to acquaint themselves with the peculiarities and excellencies of those countries in gardening, and thus to bestow on their native soil the benefits of their acquired knowledge.

In our own country, and in this state, the experience of Great Britain, has not been lost upon its citizens. Our climate, though variable and often rough, can yet boast of a benignant summer sun, and a delightful and often magnificent autumn. It is indeed such a climate and land, that promise every thing to the hand of industry—nothing to the sluggish and inattentive.—Added to this, such is the happy peculiarity of our situation, owing to the increased facility of intercourse, that a few days furnish us with the tropical productions of the southern states.

While it has been the effort of several spirited individuals in our vicinity, for a number of years, to increase the quantity and quality of our vegetable productions, they have often experienced the lassitude attendant on solitary and often unappreciated efforts.

To obviate this, to excite emulation, to honour every laudable enterprise, to place in proper relief before a public always willing to bestow proper desert, —in fine, to promote the public good through individual enterprise, has been the object of the establishment of this society, and its compeers at New York and Canandaigua.—Of the utility of our own, we can only speak from the promises of its infancy; but those are fair, large, and decisive—illustrated by proofs that carry conviction. We have only to visit the gardens which in rapid succession are ornamenting all the borders of our city—to inquire into their productions—to ascertain how many have been introduced from foreign countries, or the remote parts of our own—how many experiments have been made to improve what we already possessed, and then to ask, would this rapid increase—this zeal have been displayed, if the owner had supposed his own flowers were born to blush unseen, or his clustering fruit to hang unnoticed? Man in all states, requires the support and kind countenance of his fellow man, and it is thus, that institutions like our own, if conducted with a proper spirit, so rapidly effect their intended objects. We have again only to visit our markets, and compare their teeming and varied treasure, with the confined and inferior products of former years. Is it not evident that not only the plenty, but the excellence of our vegetables and fruits is increased—and that by fostering this society, the public generally, the poor as well as the rich, have been greatly benefited?

I cannot conclude these remarks, without venturing to direct the attention of my auditors to a subject of interest, although it may be considered by some, as not of immediate consequence. I refer to the planting and propagation of such trees, as are required in the arts and manufactures of our country. For many years, it has been the business of our farmers, to free the earth from the forests that covered it, and thus to prepare it for the purposes of agriculture. This, however, has often been done with a reckless hand; and in the immediate vicinity of our cities and large towns, the diminution has been felt in the increased price of wood, and the greater distance from which articles required for architectural purposes are obtained. Our numerous canals, opening new sources of supply, may render the want less manifest for a time; but, before long, a period must arrive, when the system now pursued, will have an end. It is already noticed, with some alarm, that the live oak so needed for the navy of the nation, is becoming scarce, and that plantations of it, must be nurtured for meeting future demands. In Europe, and particularly in Great Britain, the value of estates has been doubled within the life of man, by extensively planting trees required for building, and for their naval and mercantile marine. The scientific part of it, is now well understood, and it certainly would be desirable, if the practice could be somewhat introduced into the older settlements of this country. It might lead to greater interest in the public places of our cities and towns. Who that has visited the Battery in the city of New York, and noticed the magnificent forest trees on it, some of them of southern origin, or viewed the venerable grove of sycamores, covering with their shades, the academic retreats of Columbia college, has not desired that in the place of his residence, there might be such a resort for his hours of relaxation, and such a play ground for his children. Travellers inform us, that in every bright sunny morning, the aged French emigrant, an exile from his country for 25 years, is to be seen enjoying the shelter of the beautiful gardens of Paris. With this, he consoles himself amidst the loss of property and the dispersion of his family circle. So it is throughout the world. The garden in its widest sense, with its fruits and flowers and trees, enters largely into the idea of country and of home.—If born among such an one, its beauties will never be forgotten; as age advances, it will exercise a benignant influence upon his taste, and in the decline of life, its shadows will be his favourite retreat.

"A neighbouring wood, born with himself he sees,
And loves his old cotemporary trees."

I have said that the garden enters largely into our ideas of country and of home. And have we not reason for gratitude at every return of this and similar anniversaries, when we recur to the prosperous and happy condition of our own? Though our breezes be variable, though industry and labor be required, though, as in more favored lands, the earth does not pour forth its rich treasures spontaneously, yet, we enjoy that which sweetens the hardest lot—the possession of freedom, with no alloy, "except the apprehension that we will not appreciate it sufficiently high." With these incitements we need not envy, though we may admire, the productions of more genial skies. And in our succeeding festivities, let us not forget that delightful region, that lovely France, whose vine covered hills and gay valleys were immortalized by the poet at its first revolutionary struggle, and whose citizens, amidst the richest gifts of climate and of soil, have yet, like our ancestors, yearned after and found the liberty, which alone gives to the power of fleeting life, its lustre and perfume.

Horticultural science, about Rotterdam, Amsterdam, and the whole province of Holland, is kept up merely by a few florists in Haarlem, and some botanists in Leyden, and perhaps by a few others; but the love of gardening, in private gentlemen, has so declined, that the florists could not exist without their trade to foreign countries. It is surprising that as yet none of the numerous cultivators of bulbs has published a work; and even few foreign books on gardening are known among them; because they are of no use for the culture of bulbs.—*N. Y. Farmer.*

CULTURE OF SILK.

In the House of Representatives of Pennsylvania, on Friday January 14, Mr. INGERSOLL, from the committee to whom was referred the letter of PETER S. DUPONCEAU, accompanied by a silk flag of the U. States, reeled from American cocoons, and manufactured by JOHN D'HOMERGUE, made report, which was read as follows:

That this beautiful specimen of American agriculture and manufactures, carried through all its processes in Pennsylvania, is a practical result of the utmost importance to the wealth and prosperity of the state. Its agriculture has long suffered from restriction to certain staples, of which the production has increased, while the foreign demand is greatly diminished. By the valuable experience of Mr. Duponceau and Mr. D'Homergue, it is established that the climate, the soil and the waters of Pennsylvania are eminently congenial with the culture of silk, which it is believed may be cultivated with advantage throughout the U. States. If so, this inestimable product must become a great staple of the country. Adverting to the fact that but forty-six years ago, an American vessel with cotton on board was seized at Liverpool, under the impression that cotton was not the growth of America, and to the fact that last year more than 640,000 bags of American cotton were imported at that port, there is nothing unreasonable in the anticipation that a similar developement may attend American silk.

In every country producing silk, it has become the fruitful means of industry and wealth. Every manufacturing country, incapable of producing, has spared no effort to naturalize it. Added to the other products of this State, and Union, its benefits must be incalculable. It leaves all other employments unimpaired, and affords domestic occupation to females and children, who may rear the cocoons and reel them into raw silk. Many millions, as Mr. Duponceau states, are the tribute money paid for it by the United States to foreign countries.

From the increase of the coasting trade of Philadelphia, which has nearly trebled within the last eight years, encouraging and increasing proof is afforded, that the agriculture, manufactures and mineral wealth of the State are in active and increasing demand. If, as is understood to be the case, vessels loaded with the coal of Pennsylvania, are destined to sail for France in the ensuing season, the foreign trade of the state may derive great augmentation from that source. Even the quantity of flour exported from Philadelphia to Europe has much increased of late: and wool bears better prices throughout the country.

With these flattering prospects, no aid within the power of legislation should be withheld from the endeavour to domesticate silk, and unite so important a staple to the others.

In France, Italy, Flanders, Spain and England, no wealth or honors were spared by government, when the object was to cherish and reward the cultivation of this superior article, which, in all ages and nations, from the earliest era to the present, has been in universal request, and of the highest value.

The flag presented by Mr. Duponceau is a proof of the natural and the artificial resources we possess; and that, in the practical skill of Mr. D'Homergue, the country enjoys the fortunate means of obtaining all the instruction and demonstration necessary for the complete attainment and indefinite extension of the difficult art of reeling silk, without which raw silk for manufacturing or of the merchantable quality, saleable in foreign markets, can not be produced.

The patriotic, disinterested and most praise-worthy exertions of Mr. Duponceau, to establish this art among us, entitle him to the gratitude of the State. They constitute another of the public services of a citizen, whose career, beginning in the army of the revolution, and continued in the department of foreign affairs, afterwards distinguished by eminent accomplishments in jurisprudence and other sciences, has exalted him to become the successor of Jefferson as president of that philosophical society which was founded by Franklin. To the duties and distinctions of such a career, Mr. Duponceau, in the decline of life, superadds a noble effort to confer upon his country the inestimable advantages of the introduction of silk, and to join that to the many honours of which his venerable years are full.

The committee trust that it will not be deemed inappropriate to display this flag in the hall of the representatives of Pennsylvania near the speaker's chair; the same that was once filled by the president of that immortal congress, which, in the city of Philadelphia, declared the independence of these United States.

They, therefore, respectfully submit the following resolutions:

Resolved, That the representatives of the commonwealth of Pennsylvania accept, with great sensibility and satisfaction, the silk flag of the United States, presented to them by Peter S. Duponceau, as an auspicious promise of national wealth and prosperity, and a proof of the patriotism of the distinguished donor.

Resolved, That the flag be displayed in a conspicuous part of this house, under the direction of the speaker, and that the clerk be directed to communicate to Mr. Duponceau copies of these resolutions and report.

The resolutions were adopted.

RURAL ECONOMY.

(From the New England Farmer.)

THE HONEY BEE.

(Concluded fron page 358.)

J. V. C. Smith, M. D. *Plymouth, Dec.* 30, 1830.

Dear Sir,—The perusal of your interesting observations has afforded me the greatest degree of satisfaction, and for which I beg you will accept of my respectful acknowledgments. The subject of bees has for several years occupied a considerable share of my attention, but for want of a glass hive and a microscope I have been unable to make any particular theoretical discovery or any new observations respecting their internal economy. I am indeed greatly disappointed, and surprised to learn that with your excellent hive you have not had the pleasure of recognising the queen; such negative evidence, however, will not shake the general faith so firmly established in her majesty's existence and sovereign dominion. Your queen was undoubtedly in her dignified retirement in the interior of the original hive, while her subjects were in the exercise of their functions in the glass hive.

Some polite ladies have complimented me with the suggestion that the bee fraternity ought to erect a monument of wax to my memory; but I will cheerfully resign my claim to that honor in favor of your superior merit. I am exceedingly gratified with your history of your "philosophical apiary," and hope you will continue to pursue your investigations until you add to our common stock some important improvement in the history and character of our favorite little insects. Your expedient of marking the bees, has, it seems, satisfied you that there is a class which are employed as architects exclusively. But still it may be inquired whether they are preferred, as we prefer the most skilful artists, because they are enabled by superior ingenuity or by long experience to execute the work in a manner more advantageous than their compeers in common? I have no idea that insects are endowed with the faculty of improving by experience, or deviating from the routine prescribed for them by their Creator. In regard to your observation that bees are sometimes remiss in their labors, or that coercion is resorted to for the purpose of exciting industry, it is highly probable that capital punishments are inflicted, and that the dead bodies you have seen thrust out of the hive occasionally are those of the executed criminals. I regret that you were deprived of the pleasure of witnessing the exit of the spider that so audaciously intruded himself into your hive. It may appear strange that bees do not on such occasions make use of their wings which enable them to dart upon an object with great rapidity. But in the art of war it is prudent to attack an enemy by *regular approaches,* and thus acted the bees towards the spider's fortress. Are then these little insect bodies inspired by a soul, or can matter think? Surely your account of bees' elevating pieces of comb by building pillars under them, and their artful conduct towards the spider, similar to the human warrior, are precisely analogous to human intelligence.

I cannot concede to your position that an "egg is deposited in every cell of honey throughout the hive." There appears full evidence on examination, and all authorities agree, that specific cells are assigned for the reception of honey, and for the eggs which produce the young brood. But, my friend, you must no longer be sceptical as to the existence of a ruling queen. I am yours, in all sincerity,

James Thacher.

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Doctor Thacher having presented Doctor *Smith's* letter to Mrs. *Mary Griffith* of Charlieshope, New Jersey, was favored with the following observations from that accomplished lady:

Dr. Thacher—

Dear Sir,—Many are the fables about bees, but the fact of the existence of the one denominated queen bee is a reality. If any thing can be relied on as a certainty in the history of this curious insect—the bee—it is that there is never more than one female in the hive, excepting when a new swarm goes from the hive. One other fact I must mention, which is, that *bees do not sting one another*. Their mode of warfare is to gnaw or bite each other under the wings. This they do either when engaged in a regular battle in the air, which sometimes occurs, or when they act on the defensive at the door of their hives. I never saw one bee sting another, but I have known them to thrust out their sting when in the agonies of death by smothering; their sting, thus thrown out in madness, will sometimes lodge in the body of another bee, but I am sure that they do not inflict wounds with their sting. By gnawing their enemy under the wing, they disable him from fighting and from entering the hive. They destroy all the drones in this way. I have seen two and three bees at a time gnawing under the wings of one drone; hundreds of drones may be seen crawling on the ground unable to fly; of course they soon perish. I shall send you by the first opportunity a queen bee, and will send one to your friend Dr. *Smith* also, as I have four of them in good preservation.

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(Mrs. Griffith's second Letter.)

Dr. Thacher—

Dear Sir,—You tell me to answer your questions at my leisure; nothing but very pressing business, which I cannot plead at present, ought to prevent me from replying to your letter immediately. It would not be becoming in me, to show less zeal in a pursuit which is as interesting to me as to you. The four queen bees, were obtained, when dead, from four smothered swarms. If any of your neighbors smother their bees, you can gather up all the dead bodies carefully, and spread them out on a large table, and on close search you will find the queen; she is the largest and lightest colored bee in the swarm, with shorter wings and proboscis than the rest. She can never be mistaken in summer for a drone, for he is a larger, heavy made, thick insect, even darker than a working bee, with wings covering its whole body; and she cannot be taken for a drone in *winter,* for not a *single* drone escapes the general massacre of August and September. Many are the swarms that I have examined, but I never yet saw a drone after September. They are not suffered to live an instant after the vivification of the last deposition of eggs, and they only make their appearance in the spring, at the precise time when they are wanted to hatch the newly laid eggs. You say that I have suggested a new idea respecting the mode of warfare among bees, and you add that if my suggestions be true, what becomes of *Huber's* testimony to the contrary?[*]

My dear sir, how frequently must you have seen theory after theory crumble away, and others of dissimilar character occupy their place. In medicine—you are a medical man—from *Hippocrates* down to our Dr. *Rush,* who was the last system-monger, how has each theory prevailed for a time! Huber was undoubtedly an honest man, but he was nearly blind, and when we know how much depends on clear vision, we cannot, or rather ought not, to receive all that he says as correct truth. It is true that his secretary, *Francis Burmen,* acted for him, but it would indeed be marvellous if this assistant were as deeply interested, of as strict integrity, and as well qualified by genius and talent to investigate so minute, perplexing and difficult a history as *Huber* was himself. No stain therefore should rest on the fame of a naturalist so deserving of our respect and admiration. As to *Francis Burmen,* I would not accuse him of wilful misrepresentation; he only reported to Huber what he thought he saw. He had some knowledge of the "doctrine of consequences." Bees have stings; when annoyed by an animal, they sting it; consequently when enraged by one another they revenge themselves by inflicting a mortal wound with their stings; so reasoned *Francis Burmen* and a host of others. This admitted of further proof, if the shadow of doubt ever passed over their minds, by the circumstance of the curving of the body of the bee when engaged in fight. The fact is, when we consider the length and weight of the lower part of the body compared with the upper part, we shall perceive that this curve is unavoidable; it is a natural contraction of muscles, and it occurs whenever the mind is agitated. I have an excellent microscope, and from long practice I can manage it adroitly, but on the closest examination, I have never yet seen a hole in the dead body of a vanquished bee. If bees sting one another, why do they not sting the drones? I have sat for hours during their massacre, for the purpose of ascertaining this fact; but although my eye was within two feet of the platform, I am certain that *no sting was ever protruded.* It was really an arduous task to kill a large drone. It sometimes required two or three bees to disable him. The drones have no sting; there was no fear therefore of their acting offensively, and their death would only occupy a moment of time, by means of a sting. Even when a battle takes place in the air, the bees never use their sting. I have, when upwards of 20,000 of the slain have laid on the ground, seen as many as a dozen bees attached to each other by means of their stings, and during the agonies of death, by smothering, I have frequently seen the bees with disruptured entrails in consequence of their inability to extract their sting.

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[*] Huber asserts, that being desirous of witnessing the scene of carnage, he placed six hives on a glass table and placed himself and assistant beneath it. On the 4th of July, the working bees actually massacred the males in the whole six hives, at the same hour and with the same peculiarities. The glass table was covered with bees full of animation, which flew on the drones, seized them by the antennæ, the wings and limbs, and after having dragged them about, they killed the unfortunate victims by repeated stings directed between the rings of the belly. The moment that their formidable weapon touched them, was the last of their existence; they stretched themselves out and expired. J. T.

But in both these cases the natural instinct of the insect was gone. In the first case these few, when they were brought down to the ground by their adversary, and were maddened by rage and pain, were no longer under the control of their instinct. It is what is understood by running a muck, using a deadly instrument indiscriminately without any preconcerted, or definite plan. And in the case of smothered bees, I have more frequently seen their stings attached to the lumps of melted brimstone and earth than to one another. I wish I could satisfy myself equally well as to the use of the farina or bee-bread; for the bee-bread, you know, is nothing more than layers of little pellets, well packed down in the cells by the bees. These pellets are put in the cells exactly as they are taken from the flowers, showing when the cell is opened all the different shades of yellow which the pellets exhibited on the thighs of the bees, and only acquiring that uniformity of color and bitter, acrid, offensive taste by heat and age. I am as ignorant at this moment for what purpose this bee-bread is brought into the hive, as I was when I first commenced the investigation. The *maggots* are not fed with it, *that* is certain; and it is quite as certain that it does not enter into the composition of wax. The nearest *guess* that I can make towards the truth is, that it is the principal ingredient of propolis or bee-glue, which you know is distinct in its nature and properties from wax.[*]

As to wax I consider it as a secretion. I have had no means of ascertaining whether it be voluntarily raised from the stomach, or from any other viscus or organ. Wherever it may be elaborated, its first appearance as *wax*, is from the mouth. If Dr. *Smith* have any cause to value my opinions, he can soon satisfy himself of this truth. For although he cannot gain much *consecutive* knowledge by watching the operations of the bees through a glass hive, these insects being very impatient of such inspection, yet for a second or two he can see enough to convince him that wax is a visceral secretion, and not an exudation from the pores of the body, as some authors imagine. I would not hurt Dr. *Smith's* feelings, by showing what little knowledge I possess when it goes to prove him in error. But of what use is my experience, or any experience, if it is not to benefit others? The very mistakes that he has made show so much minute attention, and his remarks are so sensible, that I foresee you will find in him an able coadjutor. It will not pain him, I am sure, to be told that he has started wrong. When a glass door is suddenly opened, the glare of light surprises the bees; they become confused and run about without any apparent object. I must except those who are employed in building the comb, they are generally less affected by external interruption than the other workers. Those bees, too, which come in loaded with pellets of bee-bread, will generally move forward and deposit their load, but there is soon a general disturbance, and many false conclusions must be drawn from their mode of proceeding.

What Dr. *Smith* says of dressing or cleaning one another is true; when a bee comes in "travel-soiled," one or more bees immediately surround him, relieve him of his pellet or honey, and then nibble at him as it were from head to tail, and when they release him, he is as fresh and vigorous as ever. What the Doctor suggests about punishments is true enough. The bees which he has seen dragged out, apparently in full health, were intruders, or they were disabled in some way or other. If a bee droop on his return from an excursion, and is not invigorated after being ministered to, he is immediately destroyed. They do not allow a crippled or sick bee to remain an *instant* in the hive; there cannot be an idler among them; even those who are apparently idle at the entrance, or on the side of the hive, have some part of the policy assigned them. The noises which are made by the rapid motion of their wings is for some purpose, certainly; when the motion of the wings occurs at the door of the hive, it is to serve as ventilation." I am yours, very respectfully,

M. Griffith.

(From the Genesee Farmer.)

ON PRESERVING BUTTER.

Addressed to Farmers and Citizen House-Wives.

Butter has become an article of such primary importance, and such a leading *material* in the daily consumption of mankind, that it seems to me that if one quarter of the attention had been paid to its improvement, that there has to subjects of minor importance, our markets and tables would not so often be the subject of complaint.

I shall not attempt to give a chemical analysis of butter, or even directions for making it, as it is only a good article that can obtain buyers, or gain admittance to the tables of private. familes, who provide for themselves, but I would here observe that there is not such a marked difference in particular districts or pastures, or in breeds of cows, or even skill in the manufacturing, except as to neatness and cleanliness, as most persons imagine.

In buying your butter, the most sensible question you can ask, is "how many cows do you keep;" the chance of a good article is generally in favour of the *larger number;* any other inquiries are mere moonshine. Tasting, smelling, seeing, and feeling, are the only true criterions. *Fresh, sweet, and clean,* is all that is required: the grand secret is *preservation,* and this is so simple that no one who loves a good article should ever complain of having bad, rancid, or frowey butter.

Butter is an oil, rather more appertaining to animal than vegetable origin, and when pure, does not contain the elements of spontaneous fermentation, or decomposition, and if not exposed to the air, is as unchangeable as gold, or the diamond itself; and the first pound that was made by the Scythians, who were the first discoverers, 500 years before the christian era, if properly prepared, and hermetically sealed, would be as fine and palatable this day, as the best pound made in the "Genesee country" this year.

Allow me to give one fact within my own knowledge, to support this assertion. In the summer of 1827, I had presented to me a piece of butter 21 years old, and which to taste and smell, was as fine and sweet as the day it was churned, and for aught I know, even sweeter, for it was the very *cream of butter*. It had been preserved under the following circumstances. A farmer's wife, during very hot weather, had put a large roll on a pewter plate, and tied it over with a white napkin, and lowered it into a deep well to cool and fit it for the table. In withdrawing it the string broke, and it sunk to the bottom.—Twenty-one years after, the well was cleaned, and during the operation, it got loosed from its imprisonment, rose and swam on the surface, to the no small annoyance and surprise of the man who was in the well. It was carefully drawn up as the egg of some land or sea serpent, but the good wife soon laid the spook, and explained the mystery.

Now for the grand secret of preservation, for the promulgation of which, I only ask my readers to try it *once*, and they may forever after do as they *please*.

After butter is made, or comes into your posession, if in warm weather, the first operation, is to put it either into a cool cellar or into cold well or spring water, till it becomes of as hard a consistency as it can readily be worked with a ladle or paddle. In small portions work out all the milk or whey that it contains, which is best done in a wooden bowl, held in a sloping direction. You may even work it with cold water, changing it till it comes off clear, except in which case, it will need an additional quantity of salt, and if you will do it with the following compound, you will decidedly find your account in it; viz:—two parts common salt, (not too fine) one part saltpetre, and one part sugar, by measure. And above all, remember that the working must be thoroughly done, if you wish it to keep a long time, and that it can only be done when cooled down to a proper temperature; for by this process you purify it of all self-acting and putrefying particles, that are capable of spontaneous change and decomposition; and it now only wants to be kept from contact with air, to render it perfectly unchangeable. To do this, take any sweet wooden cask, tub, or firkin, that has been used at least one year before, and lost its wood flavor, or what is decidedly better, stone and earthen jars or pots, make the butter into rolls of that convenient size, that the half of one shall be fit for the table, and lay them carefully and snugly down, till the vessel is full, or within a few inches, then make a brine of cold water, as strong as salt will make it, or to saturation, and cover fairly the whole of the butter. If properly packed, it will not swim as you use from it, and if kept covered, it is as sweet and good at the end of ten years as when put down.

It is important to be in rolls, to prevent its coming too much in contact with the wood, whereby it would receive air and be inconvenient to come at when wanted. If it is desirable to pack it in bulk and solid, for market, the best way is to work it well as above, pack down firmly, and on the top put about a half inch of fine salt, leave it about 8 or 10 days and you will find it has shrunk from the side about an eighth or quarter of an inch, then head up, and through a hole in the head fill it with brine.

H. Y.

A SIMPLE AND EFFECTUAL METHOD OF KILLING WASPS.

My plan is this:—When a wasps' nest is found, I take about half a pint of tar in a pitch-ladle, and run part of it into the hole where the nest is; put the remainder of the tar round about the mouth of the hole, and the job is done. All the wasps that are in the nest are caught in their attempt to come out, and those that are out are caught in their attempt to go in: so that none escape. If the nest should be in a place where the tar will soon get dry, it may, perhaps, be better to put a little more tar round the hole the following day; as, in general, there are a great many of the wasps which are out all night, and when the tar is dry it will not catch them.

It is not necessary to dig out the nest; and the tar may be applied at any time of the day, even when the wasps are most busy.—*N. Y. Farmer.*

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[*] I really concede to the position of Mrs. G. that farina or bee-bread is not designed as food for the young brood, nor is it an ingredient in the composition of wax, as formerly supposed. But that it *is* of important use in their economy is unquestionable; it is undoubtedly eaten by the bees, and it has been asserted by some writer that a hive of bees, however amply supplied with honey, cannot subsist through the winter without a store of bee-bread. It is apparent to every observer that these insects are employed from the latter part of March, to late in October, in collecting pollen as well as honey, and storing it in their hives to a very considerable amount. One writer has asserted that there has been found in a single hive the extraordinary quantity of one hundred pounds.[*] From this fact it may be concluded that farina is not intended for the formation of propolis, of which a few ounces will suffice all the purposes of a hive; farina, moreover, possesses no agglutinant property, which is essential in the formation of bee-glue.

It may be noticed as proof that bees eat bee-bread, that, in the spring especially numerous yellow spots are observed on the floor board and about the hive having the appearance of farina evacuated by the bees.

J. T.

[*] Mease's edition of Willich's Encyclopædia, article bee-bread.

MISCELLANEOUS.

['The following is taken from a small pamphlet entitled “‘I II II OBION,” ('ippos, a *horse*, and bios *life*,) sent to us by an unknown hand. It purports to be an address from a horse to the spirits of sympathy, giving an account of the treatment he receives from “one of the beings inhabiting the sphere second from the sun.”]—*New York Farmer.*

The Life of a Horse.—Translated Extracts from ‘I II II OBION.

Although even my youth was embittered by confinement and ill treatment, I must not omit the few joyous days passed in partial liberty or peace—the kindness and affection of my parent; the innocent gambols with my fellows; the delight with which my senses and faculties were expanded, when by playful exercise, I increased the vigour and activity of my limbs—how tranquilly I basked in the warmth of the sun, and gazed at his resplendent beams, shed over the cheering landscape; how eagerly I skipped from the clear fountain, browsed the tender herbage, snuffed the refreshing gale, and bounded over the yielding turf.

When I had passed my third year, they commenced what they called breaking me. This operation should have been gradual and gentle, to familiarize me by degrees, almost imperceptible, to the various novel and oppressive feelings and situations it produced. But the only preparation I had received was my previous ill treatment at the hands of man. Having forced a clumsy bit in my mouth, and holding the allonge in one hand and a long heavy whip in the other, he drove me in a circle. I would have gone sufficiently well of my own accord, requiring only, when irregular or fatigued, a mild, sparing correction. But he inflicted on me a constant succession of severe lashes, sudden and powerful pulls upon my mouth. This discipline was often and aggravatingly repeated, and the whole process of training, like the usage given me in general, was any thing but just. My humble jaded appearance, caused by this pitiless treatment, gave rise to many unfeeling remarks from the bystanders. As a horse I could not feel their sarcasm, but my intelligent spirit was grieved to perceive them have such mistaken notions of their conduct, and to their needless cruelty, add heartless, though as they thought, unheeded insult.

He next proceeded to back me. Having fastened a heavy double bit in my tender mouth, with a severe curb chain bearing hard, wounding my under jaw, and secured the irksome saddle with his tight girths, an assistant holding me by the mouth, he suddenly sprang upon my back. Frightened and pained by my strange situation, the heavy weight on my body, the confining pressure of the girth, and the galling of the curb, I struggled for release, while he continued incessantly jerking in my jaws, lashing me with his whip, and driving his sharp spurs into my flank. Thus fretted and tormented into an agony, I made some instinctive and convulsive efforts to release and defend myself, by shaking my head, plunging, rearing; which were returned by my merciless master by deeper goads from his heels and more cruel jerks from the reins, adding to my terror by the loud, harsh tones of his voice. He continued these various modes of torture with all the violence his strength and art, stimulated by his rage, could supply, nor did he dismount until they were totally exhausted. I, my mouth, sides and limbs, swollen and bleeding from the various instruments of his cruelty, and overcome with excessive fatigue, pain and terror, could scarce support myself on my feet. When at last I was freed from the presence of my tyrant; the aching of my frame, and the horrid impressions remaining on my mind prevented all repose. Besides, I was gnawed by hunger and thirst, for he finished his work at that time by withholding all sustenance, saying that my spirit must be further broken. These were the beginning of the miseries of my irksome life—a life prematurely brought to a close by the oppression, privation and slavery of which it was composed.

* * * * *

For offences of the most trifling nature, as well as for acts in which I was perfectly blameless, I have received the most unkind and savage treatment. When almost choked and parched on the dry, hot road, I have cast a wishful eye and ventured slightly to incline my drooping head towards some watering place; how much easier for him, instead of cruelly punishing, to have indulged me for one moment, and permitted me to slake my thirst; and how much better the slight refreshment would have enabled me to travel; at least it were barbarous enough to refuse me the gratification of the simple cravings of nature, without also half murdering me with whip and reins. If galled and rendered restless by any part of the harness improperly made or placed, or my flesh pierced and lacerated by the harsh application of a curry comb's sharp, wiry teeth, I have tried to relieve the irritation by any motion of my body; if stung by insects, I have attempted their removal; if some unusual, sudden or terrific sound or sight has caused me to give an involuntary start; if icy, muddy banks, or smooth rocks have made me slip, or an over load, an uneven path-way, or the treading on the sharp fragments of stone, forced me to stumble; without ascertaining, removing, or even reflecting on the cause, my master would redouble his blows and abuse.

An awkward furious rider, once spurring me forward, and then instantly curbing me with a violent pull on his heavy double bit, the extreme pain of the spurs in my sides, and the pressure on my lips, forced me to rear, and he continuing his pull on my mouth, the constant strain inevitably drew me further back, until he lost his balance, and his whole weight drawing on my head threw me, in spite of my efforts to save myself and him backwards. with a terrible shock, prostrate on the road. Almost stunned, breathless and fainting, as I was, from the overpowering fright and pain of such a violent and sudden concussion, he did not think that I had suffered sufficiently for his fault, or in charity must I say, he did not think at all, but placing one foot on the bridle near my mouth, and thus holding me to the ground, he stamped, beat, spurred and lashed with all the force his rage could exert. His own caprice and wanton abuse of power, first urged me to bound, and his ignorance in not giving me my head a trifle, when I was rearing, completed the catastrophy.

* * * * *

Even when I had a humane owner, how much I suffered from his ignorance or indolence I have been beaten, bruised and half starved by the servants, ostlers and drivers, to whom I was entrusted; and if they were accused, they would deny, or if detected, throw the blame on me, by misrepresenting my temper or habits. Thus I have been hard ridden or driven, deprived of my needful rest, food and drink, and he being not informed of all this and ascribing my want of activity to laziness or obstinacy, would severely punish me, while in that weak exhausted state, by hard labor, words, blows, and further deprivation of food.

I have been savagely abused for the most contrary pretexts. By some, because they owned me and had a right to do as they pleased with their own property; by others, because they did not own me, and therefore cared not how much I suffered, or whether I was injured or killed. One would cut, jerk and nearly break my jaws, because my mouth was too tender; another, because the same mouth was deficient in sensibility. One day half murdered by all the means in my tyrant's power, because I was wanting in activity and life, and the next suffering tortures equally horrible, to cool me and break down my violent spirit.

* * * * *

An injurious practice exists in cropping the ears of horses, docking, pricking or nicking their tails, and cutting close the hair. This needless maiming, arises from absurd fashion or caprice, and is as bad a taste as would be the painting of our coats with yellow, green, or other bright colours arranged in stripes or checkers. Besides the pain of the operation and its consequent wound, it injures our original noble symmetry, deprives us of some of our most natural, needful organs and renders us more obnoxious to the stings of insects.

Some horses are also taught tricks for exhibition in the ring and other shows. Most of these feats to which we are trained, are fantastic and useless, forced into us with the greatest cruelty, disqualify us for the ordinary purposes of life, and only show to what unusual efforts nature can be constrained by long continued excessive tortures.

* * * * *

Many never ride or drive any horse without exerting severity toward him, and yet how little is ever really needed, and how seldom is it needed at all. How few would be willing to take the place of those animals which they have had in their power, and to endure all the unnecessary pains and anguish they caused and permitted. The rule of doing as they would be done to, which they acknowledge to be just when applied to each other, should be made the standard of their conduct to ALL FEELING BEINGS, *each in its degree*. The rights and wants of animals are few and simple, and it is the easy but imperious duty of man, not uselessly to injure or neglect them, but to assist in their protection and gratification.

THE FARMER.

BALTIMORE, FRIDAY, JAN. 28, 1831.

LEAVES FOR MANURE.—Our thanks are due to Mr. Meade, of Virginia, for the interesting essay on the use of leaves for manure, which will be found in the present number. There can be no doubt of the great value of this article, and the wonder is, that it has not been more generally attended to. There are few farms that have no forest in their neighbourhood, and that may not be materially benefited by the use of the leaves which are almost universally allowed to decompose and waste their fertilizing properties “on the desert air.” Besides the value of leaves for manure, they are capable of various other uses, such as hot-beds, conservatories, bedding for animals, &c., and would thus save the expense of more costly, but not more useful materials. As our friend has commenced the subject, he is earnestly solicited to continue it, until its advantages shall be fairly before the agricultural community. But leaves are not the only things allowed to go to waste by farmers generally—the weeds and litter that annually accumulate around barn-yards, gardens, and in the fields, would, if collected, form a pile of compost equal in value to nearly all other sources of manure. A careful husbandman will not let this source of riches escape him, more especially as it is killing two birds with one stone—keeping his farm, yards, and garden neat and clean, and making manure. Many complain of the prevalence of thistles, &c. in their fields. Neat and careful farmers will never have cause to complain of them; but whoever may be plagued with thistles, or any other weed, may profit by their existence on his farm, by cutting them up when in flower, and making piles of compost of them; and we may here remark, that green thistles, burdock, potato vines, bean haulm, &c., form one of the most rich manures that the vegetable kingdom is capable of affording—containing a larger proportion of fertilizing matter than any thing else. We cannot omit here the relation of an anecdote, the circumstances of which fell under our own observation:—A gardener, who annually expends no little money and labour in procuring manure from town, was seen raking up the leaves in a large grove of oaks that surrounds his dwelling, and the remark was made, that he would have a fine pile of manure; but scarcely had the words escaped, before the piles were seen in a blaze. He had bestowed all the labour necessary to form them into manure, and then set fire to them to get them out of his way! We should as soon have thought of setting fire to the barn, after gathering in the crop. After all, much depends upon the habits of farmers, upon the degree of importance they attach to apparently small things; upon their powers of reasoning and thence drawing conclusions, that all things have small origins, and that upon this fact depends their success—as, if their crop of wheat did not grow from the few quarts of seed they put in the ground, there would be no profit in their pursuit; and thus, the fertility of their soil depends upon the collection of the minute particles of nutritive matter, worthless for any other purpose, and injurious in any other disposition of them, than conveying them to their fields in the form of manure.—In fine, all depends upon the importance they attach to *gathering up the fragments.*

We intend to pursue this subject of manures more at large, and to connect with it that of reclaiming worn out and waste lands; and in doing so, we shall call to our aid such lights as agricultural chemistry in its present state can afford; and we shall endeavour to treat the subject in such a style, as to bring it plainly to the comprehension of all—for in truth, nothing but the terms in which the science of chemistry is generally treated, makes it appear mysterious or difficult to be understood. Thus, when it is said that a particular kind of manure is composed of three parts earthy matter and one of fertilising matter, the most simple mind will comprehend it; but if we say it is composed of insoluble matter 75 parts, gelatin 5, mucilage 9, saccharum 3, oil 2, extractive 3, carbonic acid 3, the farmer who has not made chemistry a particular study would derive no information from the facts stated, though the attainment of a knowledge of these facts, may have cost the scientific promulgator many days and weeks of study and experiment. We shall feel indebted to our friends for any assistance they may be willing to lend us in this inquiry.

Ledebour's Illustrations of Russian Plants is in an advanced state, and will be published at Munich with 500 folio plates. The figures will chiefly represent new plants discovered on the Altaic mountains and their environs.—*N. Y. Farmer.*

Prices Current in Boston, Jan. 21.

Apples, new, bbl. 1.50 a 1.75. *Beans,* white, bushel, .80 a 1.00. *Beef,* mess, bbl. 8.50 a 8 .75; cargo No. 1, 7.25 a 7.50; No. 2, 6.25 a 6.50. *Butter,* inspected, No. 1, new, lb. .11 a .15. *Cheese,* new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour,* Baltimore Howard-st. 6.00 a 6.12; Genesee, 6.25 a 6.50; Rye, best, —- a ——. *Grain,* Corn, bu. .72 a 75; Rye, .75 a .78; Barley .62 a .69; Oats 40 a 42. *Hogs-Lard,* 1st sort new, lb. 9 00 a 10.00; *Pork,* clear, bbl. 17 a 20; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Wool,* Merino, full blood, washed, .60 a 62; do. do unwashed, .35 a .42. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .52 *a* .58, do. half blood, .48 *a* .50; do. quarter, 38 *a* 42. Native, washed .38 a .42; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 45 *a* 50.

Prices Current in New York, Jan. 22.

Beeswax, yellow .19 a 21. *Cotton,* New Orleans .11 a .12; Upland, .9 a .10¾; Alabama, .10 a 11¼. *Cotton Bagging,* Hemp, yd. .18 a .20; Flax 12 a 16; *Flax,* American, 7 a 8.——*Flaxseed,* 7 bush. clean 13.00 a ——*Flour,* N. York, bbl. 6.50 a 6.62; Canal .6.75 a 7.00; Balt. Hwd. st. 6.75 a 6 87—; Rh'd. city mills 6.75 a 6.67; country, 6.50 a 6 62; Alexand'a, 6.00 a 6.25; Fredericksburg —— a 6.50; Petersg, 6.50 a 6.62; Rye Flour, 4.00 a 4.12½; Indian Meal, per bbl.—— a —; per hhd. —— a ——. *Grain,* Wheat, North, 1.35 a 1.40; Vir 1.40 a ——; Rye, North, 75 a 76; Corn, Yel. Nor. .73 a 74; Barley, 78 a 79; Oats, South and North, .48 a .50; Peas, white, dry, 7 bu. 5. Beans, 7 bu. 7.00 a 8.00. *Provisions,* Beef, mess 8.50 a 9.00; prime 5.50 a 6.25; cargo —— a —; Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 6¾. a .9½; Pork, mess bbl. 13.00 a 14.50; prime 9.75 a 10.50.

Prices Current in Charleston, Jan. 17.

Cotton, Sea-Island, .20 a .25. Stained .10 a 14. Santee and Maine 17 a 19. *Rice,* prime, $2¾. a 2.7-8, inferior to good, do. $1.7-8 a .2.5-8. *Flour,* Philadelphia, Richmond and Baltimore $5¾ a 6. *Corn* .52 a .55. *Oats* 40 a .45; Peas, 53 a 55. *Hay,* prime Northern, .90 a 95——*Whiskey,* Philadelphia and Baltimore, hhds. .36 a .—; bbls. 37 a 38; New Orleans, old .40 a —. *Beeswax,* .18 a .19. Tallow, Carolina, 7 a —. *Beef,* Boston, No. 1, 8½ a —. Mess, 9½ a —; New York Prime 6. *Pork,* Mess. .—— a —; Prime, .11½ a .—. *Bacon,* .7 a .7½ cents; hams, 12½ a —, Lard, 9 a —. *Butter,* Goshen, 18 a 20; inferior 8 a 12½.

FOR SALE OR HIRE,

The ensuing season, the celebrated stallion *Tom Jefferson,* eight years old; sired by the imp. Cleveland bay Exile, out of an Eagle mare. At two years old he was "recommended to the attention of the breeders of fine horses" by the Agricultural Society of Maryland; and before he was three received a premium as a stallion "adapted to get horses for the *quick* draft." In the 7th vol. of the American Farmer, page 22, he is said to be "a prodigiously fine young horse, very large, and of fine figure." In the same volume, page 104, he is mentioned as "a superb horse," and the death of his sire as "a national loss."

Also the thorough bred hunter stallion *Sky Lark,* seven years old; sired by Exile, out of a thorough bred Chance mare. He received a premium at the last Maryland cattle show; is broke to the saddle and gig, and is a fast traveller. The hunter is the *cross* of the Cleveland bay with the blooded. "It is admirable; as it *combines* strength and power with fleetness. The colour ranges through the various shades of bay;" (see 2d vol. Farmer, page 239.) It is "the *most* highly approved breed in England for the coach and road;" (see 7th vol. of the American Farmer, page 22.) The colts of Sky Lark and Tom Jefferson have been held at, and commanded high prices. Price for each $500; season of each $150, including the services of a groom for the season. One half of either will be sold for $250 to one who is acquainted with the management of such property; or either will be exchaoged for a colt or thorough bred stallion of an approved strain.

PHILIP WALLIS.

*Jan 28.**

THE HIGH BRED IMPORTED IMPROVED DURHAM SHORT-HORNED BULL BOLIVAR

Will be at Franklin, on the Franklin Turnpike road, about four miles from Baltimore—during the months of January, February, March and April next.

At Epsom farm, near Towsontown, seven and a half miles from Baltimore, on the York Turnpike road, during the months of May, June, July, and August next; and at Franklin, in September, October, November and December.

Terms.—Five dollars, to be sent with each cow.

This Bull was selected by Mr. Coates, the keeper of the Herd Book, without limitation of cost, and was highly valued by Colonel Powel, who considered him in form, points, and pedigree, equal to any animal to be had in Great Britain.

Bolivar is red and white, was bred by J. Whitaker, Esq. England. The singular neatness of his shoulders, the straightness of his back, the width of his loin, the smallness of his head, neck, and offal, the quickness of his gait, together with the well known character of his family as dairy stock, render him one of the most desirable males for improving our neat cattle that can in any country be found.

The committee on Neat Cattle at the exhibition of the Pennsylvania Agricultural Society, reported as their opinion, that Bolivar was "*the handsomest and best Bull that has ever been exhibited at any of our shows.*"

Bolivar is at the Epsom Farm at present.

Dec 17.

RUTA BAGA SEED.

The subscriber has received a large quantity of Ruta Baga Seed, raised by a gentleman of Baltimore with particular care, and with a view to inducing a more general cultivation of this vegetable, to which end (if immediately ordered) it will be sold at half the usual wholesale price when 20 pounds or upwards is taken. Price 25 cents a pound.

Also for sale a few bushels of Sunflower seed.

GIDEON B. SMITH.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—There is no business of consequence doing in the produce market, and our quotations of flour are omitted, there being no possibility of arriving at any thing like correct rates. Howard street flour was selling for six dollars out of the wagons yesterday, but nothing doing from stores. It is supposed that there are 60,000 barrels of flour now on hand in this city, principally in the hands of speculators. Until the navigation opens, there can be no regular quotations of grain, wood, &c.

TOBACCO.--Seconds, as in quality, 3.50 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00.

FLOUR—best white wheat family, $6.50 *a* 7.00—super. Howard-street —— *a* ——; city mills, ——Susquehanna, —— *a* ——; CORN MEAL, bbl. 2.25 GRAIN; red wheat, 1.10 *a* 1 20; white do. 1.20 *a* 1.30 CORN, white, 63 *a* 65—-yellow 63 *a* 65—-new white 63 *a* .65--yellow 63 *a* 65--RYE, .62 *a* .—OATS, .30 *a* 31, BEANS, 90 *a* 1.00-PEAS, 50 *a* 60-CLOVER SEED 6 00 *a* 6.50 TIMOTHY, 2.00 *a* 2¼.—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb —BARLEY, 62½ FLAXSEED -— *a* 1.25—COTTON Va. 9½ *a* 10½-Lou. 11¼ *a* 12¼—Alab. 9½ *a* .11—-Tenn. 9 *a* .10—-N. Car. .9 *a* .10——Upland 10 *a* 11---WHISKEY, hhds 1st p 27½ *a* —-; in bbls 29 *a* 29½—WOOL, common, unwashed. lb. 15 *a* .16---washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $220 *a* --; Country, dew-rotted, 5. *a* .6c.- lb. water-rotted, .6 *a* 8c.—FISH, Shad, Susquehanna, No. 1. bbl. — *a* —— do. trimmed, 7.00—North Carolina, No 1, 7.00—Herrings, Susquehanna No. 1. bbl —-- *a* 4.25--Mackerel, No. 1, 6.37½, *a* 6.50--No. 2, 5.87½ *a* 6.00-No. 3 3.43¾ *a* 3.50; BACON hams Balt. cured 10c.—Feathers, 34 *a* —-Plaster Paris, cargo price per ton, 4 25 *a* 4.31¼, ground, 1.37½ *a* —- bbl.-Iron, gray pig for foundries per ton 30.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00.—Prime Beef on the hoof, 5.50 *a* 6.25.

EDITED BY GIDEON B. SMITH.

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TERMS.

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5. Advertisements connected with any of the subjects of the American Farmer, inserted *once,* (never more) at one dollar per square.
6. All letters concerning this paper must be directed to the publishers. They must be free of postage, except communications intended for publication, and letters transmitting money.

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AGRICULTURE.

(From the New England Farmer.)

ADDRESS

Delivered before the Middlesex Society of Husbandmen and Manufacturers, at their Annual Festival, Oct. 7, 1830. By Elias Phinney. *Published at the request of the Society.*

The short time allowed to the speaker, by the rules of your Society, must necessarily confine him to a very limited view of those topics which would seem naturally to suggest themselves for consideration at this time.

Action, rather than speculation, and to exhibit practical results, rather than theoretical schemes, are the appropriate business of farmers, on an occasion like this.

The importance of the subject, on which I have had the honor of being invited to address you, is too deeply felt, and too generally acknowledged, to require either arguments to enforce, or eloquence to emblazon its claims. It need only be said, that the first sod that was turned, was one of the first decided steps from a savage to a civilized life, and that in proportion to his advancement in agriculture and the arts of husbandry, man has, in all ages, receded from barbarism. Compare, for a moment, the miserable condition of the houseless, roaming savage of the forest, clad in the skins of beasts, furious and ungoverned as himself, depending for his subsistence upon the uncertain fruits of the chase, or the spontaneous productions of the earth, with the substantial, permanent comforts of the industrious, intelligent and virtuous farmer;—and will not the contrast reconcile the cultivator of the soil, to a cheerful obedience of the divine command, to "eat his bread in the sweat of his brow?"

I shall not trespass on your time, by a labored account of the progress of agriculture, from the earliest ages to the present day. It is of little use to be told that the Emperor of China claims his royal privilege of annually holding the plough, from a custom of his predecessors, which he alleges to have existed "long before the creation of the moon;" or that the Egyptians, more than four thousand years ago, paid divine honors to Isis and Osiris, to one of whom they supposed themselves indebted for wheat, and to the other for the invention of the plough; that almost three thousand years ago, the father of poetry sung of fruitful vines and golden harvests; or that Virgil, years before the Christian era, extolled the pleasures of rural life, and the happiness of the man, who, far from the noise of cities and the perplexities of commercial life, cultivated his fields with his own hands.

It is enough that we find the opulent, the powerful and the learned of modern, as well as ancient days, devoting their wealth, their influence and their talents, to the advancement of the interests of agriculture. Who, then, is so regardless of the utility, the honor, or the pleasure, of cultivating the soil, as not to aspire to the honorable appellation of farmer? Who does not wish to withdraw from the anxious cares and uncertain pleasures of merchandize, and the perplexing duties of public or professional life to repose on the tranquil bosom of rural retirement, and taste the pleasures, as well as partake in the labors, of rustic life?

Although, as Americans, we may be excused for congratulating ourselves upon our agricultural skill, and upon the rapid progress we have made in the arts, and in all that contributes to social and domestic enjoyment, yet we should not forget, that we have much to learn. If the condition of the husbandman, in countries unaided by the light of science, and those moral influences, which, in our own, conspire to stimulate individual and social enterprise, has not advanced a single step, for centuries, in the arts of civilized life, we should not boast of our attainments, while we have so many prevailing errors to correct, so many inveterate prejudices to subdue.

What if the Devonshire farmer still adheres to the practice of transporting all the manure and produce of his farm, upon the back of his mule, and has never known the use of a pair of wheels—may he not charge many of our Middlesex farmers with an ignorance of the uses of one of the most important of all implements to good husbandry, the roller; and in the use of ploughs, whose model would seem, in many instances, to have been taken from Egyptian hieroglyphics, where it is represented with but little change from its rude and simple original, in the form of a sharpened stake?

What if the Spaniard still yokes his oxen by the horns, and others oblige their horses to drag the plough by the tail, does not the narrow and shapeless yoke used by some of us, indicate that little improvement has been made upon the straight pole and withes of former times, and that as little regard is had to the comfort of the ox, as to the interest of the owner?

What if the Russian peasant rejects the use of manure, and tells you that his fruit is poisoned if nourished by the filthy contents of his stable and hogsty; do not many of our barren fields and stinted crops show, that neglect in furnishing food for plants, has been no less detrimental to the interest of the farmer, in the latter case, than in ignorance of its properties in the former?

What if the Irish peasant and the French Cottager, who literally dwell in houses of clay, are exposed to suffering and disease under the thatched roof of their floorless cabins; are not many of our farmhouses, from their enormous dimensions and unfinished condition, as poorly calculated to give shelter and comfort to the owner? In travelling through New England we too frequently meet with a large unfinished and unfurnished house, as disproportioned in size to the wants, as it is illy adapted to the comforts of the farmer. How often do we see the occupant suffering in his dreary wilderness of decaying boards and shingles, broken windows, and shattered wainscotting, until, driven by stress of weather, he makes a retreat to some half underground corner, or contiguous out-building, whose contracted dimensions are better suited to his wants and his comforts, while his half finished mansion becomes a deserted castle, seldom visited, except to bar the prescriptive rights of birds and reptiles? Consider for a moment, the immense amount of worse than useless expenditure, that might have been saved, and the great measure of comfort, that would have been gained by the farmer, if our agricultural ancestors had adopted the English cottage style of building their farm-houses.

Why censure the southern planter for his hay stacks, his corn ricks, and his exposed and houseless cattle, while so many of our own barns are built with so little regard to the cleanliness and comfort of the owner's stock, or the preservation of his crops? A mistaken notion is too prevalent, that hay cannot be kept sweet, nor cattle healthy, without a constant exposure to a free circulation of air. From the loose and disjointed construction of some of our barns, the stabling of cattle would seem to be, rather for the purposes of ventilation, than shelter. Depend upon it, that warm and comfortable lodging is as essential to the thrift of your cows and oxen, as it is to the health and comfort of the inmates of your family.

These defects in rural economy are not confined to our own county or state. They exist in a greater or less degree in all parts of New England. While there are numerous instances which give striking evidence of the skill, intelligence and industry of the Middlesex farmer, the exceptions should admonish us that we have not so far out-stripped our neighbors in the march of improvement, that we may rest contented with present attainments, and consider no further exertions on our part necessary.

After noticing the defects in our buildings, let us occasionally look abroad upon our farms,—not merely to cull the flowers of spring, to revel on the summer beauty of the fields, or to banquet on the delicious stores of autumn; not to muse away sunny hours with Daphne, or to sport with Amaryllis in the shade; but for the more substantial and important purpose of examining their various soils, ascertaining their defects, and the mode of culture best adapted to their improvement.

The diversified aspect of our country necessarily furnishes a variety of soils. We have, however, none of such extraordinary fertility, as to allow of being cropped for a succession of years, unassisted by manure, without a sensible diminution of product. The deep intervales and extensive alluvial tracts, which abound in some parts of our country, where almost the whole labor of husbandry consists in sowing and reaping, and no farther skill of the farmer is required than to know seedtime and harvest, are not to be found in Middlesex. The broken and rugged surface of our farms, made up of hills and valleys of the roughest materials, requires great labor as well as skill to subdue its stubborn qualities, to preserve its natural strength, or to restore its wasted energies. This, while it increases the labor of the husbandman, at the same time, gives him health of body and vigor for action, while he is happily exempted from the many evils which attend the cultivator of a more fertile region. This very rough and comparatively barren quality of our soil, though it may sometimes yield but a stinted harvest, and oblige the farmer to rise early, go late to rest, and eat the bread of carefulness, has nevertheless produced an independent, virtuous and happy community of farmers, whose unyielding patriotism and noble deeds of daring have enrolled the yeomanry of Middlesex among the boldest defenders of Grecian and Roman liberties.

The three prevailing kinds of soil in this county are a light, loose soil, where sand is the principal ingredient,—bogs or swamp land, abounding in peat, and decayed vegetable and animal substances,—and a thin, gravelly loam. These shall, each in its turn, receive a brief notice.

The principal ingredients in a good soil are sand, clay and lime or calcareous earth. Either of these, when existing separately, is found to be incapable of supporting vegetation; it is only by a due and proper combination of them, that a productive soil is formed.

The loose and open texture of a sandy soil greatly facilitates evaporation. It therefore requires a retentive, tenacious substance, to bind the parts together, and thereby to retard the evaporation of moisture, and the volatile parts of such animal and vegetable substances as may be mixed with it. Clay has been found to be the best adapted to this purpose. It has been ascertained that eleven parts of sand and one of clay will form a soil capable of supporting vegetation, but the more nearly equal the parts of each, the better will be the soil. By a judicious blending of these opposite qualities of the earth, the Messrs. Wellington, two very skilful and enterprising farmers of the town of Medford, have converted their sandy barrens, and stiff, unyielding clays into rich, friable soils, of astonishing fertility. After making liberal applications of manure, with but little effect, they have resorted to their sand banks and their clay pits, and, by an alternate application of each to the other, they have found them to be mines of wealth. I mention this fact, not only as illustrative of my position, but as a striking instance of the beneficial effects of the application of skill, acquired from study, combined with practical experiments, which has resulted in a great increase of crops, attended by an actual saving in expense. For although these gentlemen may not be desirous of being styled "*Book Farmers,*" yet they are no doubt reading and thinking, as well as practical cultivators. Books, I am aware, are a most distrustful source of information among many of my agricultural brethren. This ought not so to be. While the professors and friends of all the other arts and sciences, call to their aid the light and accumulated *written* wisdom of the past and present ages, why should the art of cultivating the earth, by far the most important of all the arts, be allowed no other guide than blind tradition?

To what are we attributing the recent rapid advances in agricultural knowledge? What has enabled the farmer to discover new sources of wealth and pleasure? What has staid the wasting mania for emigration, and taught our young men, that from a New England soil, and a New England fireside, more substantial comforts may be derived, than can be found "beyond the mountains?" What, I say, has done all this, but books, and the scientific communications of literary men, who have devoted their wealth and their talents to lighten the burdens and increase the stores of the farmer?

Allow me, while on this subject, to advert to one source of information, which has been, in no small degree, instrumental in producing these favorable results. I mean the various periodical publications of the day. At the head of these stands the *New England Farmer*. This has done much to arrest the withering power of ancient custom—has not only taught us the theory, but has enabled us to realize the pleasure of fruitful gardens, of smiling fields and luxuriant harvests. I am confident the sincerity of my motives will not be questioned, when I recommend the sound practical lessons of its enlightened editor, to the constant perusal, not only of farmers, but to every friend of rural economy.

The second variety of soil, which we shall notice, is the low, wet swamps and peat meadows. These are daily becoming better known, and their value more justly appreciated. The mud of swamps, which contains *no peat*, is composed mostly of decayed vegetable and animal substances, which having not been immersed in stagnant waters, but having been exposed to the action of the atmosphere, or the oxygen which it contains, have passed through a putrid fermentation, and thereby reduced to a rich, black mould, susceptible, after draining, of being converted into very productive soil. Peat grounds are composed principally of vegetable and animal substances, which, having been immersed in stagnant waters, and thereby excluded from the action of the atmosphere, have not undergone a putrid fermentation, and therefore still contain the acids, oils and gums, and in some instances, the sulphate of iron or copperas, and other antiseptic qualities, common to vegetables. These properties must be removed or neutralized by a combination with other substances, before peat can become food for plants, either when subjected to field culture, or when it is to be used as a manure. Exposure to the air, when combined with a sufficient degree of moisture to prevent its becoming dry, or if when taken from the pit, it is spread upon the ground, and exposed to severe frost, or by mixing it with lime or fresh stable dung, either will break down its coarse, vegetable fibre, destroy its antiseptic properties, and render it a valuable manure. Observing the effects of peat upon upland, where it had been spread for the purpose of drying it for fuel, I was induced to try it as a top dressing for grass, and found it to answer a valuable end, particularly if taken out in winter and spread upon the ground so thin as to admit of its freezing. When to be used for making compost, Lord Meadowbank recommends one load of fresh stable dung, to three of peat; a layer of dung from six to ten inches in thickness, to be placed between layers of peat, raising the pile by alternate layers four or six feet high, and allowing the whole to remain until it shall have fermented. I tried this plan for two seasons, but frequently found that the dung was injured, by too great heat, while the peat seemed but little benefited by the fermentation. I have since adopted the plan of mixing the whole mass finely together, and have found the dung less injured by the fermentation, and the peat more equally operated upon, and more finely pulverized.

The first step to be taken, in the process of reclaiming these swamps and peat meadow grounds, is to drain them thoroughly; unless this can be accomplished, all the labor and expense bestowed will, after a short time, prove to be useless. The method pursued by the most experienced cultivators, is to cut a ditch through the centre, another at the margin or outer edge, (the most essential part of the operation,) to take off the water which is constantly setting in from the surrounding uplands, with cross drains from this to the centre ditch.

The surface of these low grounds is generally of a spongy, loose texture, so open and porous that the small roots of the upland grasses cannot fill the holes or cavities between the parts, and the earth not adhering close to the small fibrous roots, they can derive no nourishment from it. Hence we see that these grounds while in a state of nature, produce little else than brakes, hellebore, pothos or skunk cabbage, and some others whose coarse roots are capable of filling the pores and vacant spaces, and finding nourishment among the disconnected parts.

I planted a small patch of corn, the last season, upon a piece of loose, spongy, peat soil, which had been newly ploughed. It grew well as long as the blade was nourished by the kernel, but when this was exhausted, it assumed a sickly appearance, and hardly found nutriment enough to preserve its existence through the summer. This was not owing to a want of nourishing matter in the soil, as was evident from the exuberant growth of pumpkins and potatoes in the immediate vicinity of the corn, but because the small fibrous roots of the latter could not find it, while the coarse roots of pumpkins and potatoes filled the pores and cavities between the parts of the soil, and being brought in contact, derived sufficient nourishment from them. The same effect may be observed upon a heap of coarse manure; plants of small, delicate roots refuse to grow, while those of coarser roots grow with wonderful luxuriance.

In order then to make this species of soil productive, something must be done after draining, to divide the parts more finely and bring them thereby in closer union, or the pores must be filled with a substance of more minute parts. A question then arises —what mode of culture is likely to produce the desired effect, and thereby to render it productive?

Four different methods have been pursued by different cultivators; these are, paring and burning—covering with sand or gravel—ploughing and cultivating with fallow crops, and what is called *bogging*, which consists in turning over the turf or sward with the hoe or plough, and then spreading on a light top dressing of loam or compost. Each of these methods has its respective advocates.

On the subject of paring and burning, writers have expressed different and opposite opinions.—Some of them strongly recommend the practice, and others as decidedly condemn it. While these contradictory opinions and results serve rather to distract than to enlighten the practical farmer, we can find but little, from an observation of the experiments which have fallen under our own inspection, to enable us to come to a satisfactory conclusion as to its beneficial or injurious effects.

A neighbor of mine, ten years ago, pared and burned about three acres of peat meadow land, and sowed it down with rye and herd's grass seed. While the salts, contained in the ashes, continued to operate, which was for the two first years, his crops were very good,—the third year, the produce was greatly diminished, and, from that time, it has remained but little better than a dead, unproductive waste, yielding much less than before burning and of no better quality. The unfavorable result in this case, had the effect to prevent a repetition of the experiment by any of the neighboring farmers.

(To be continued.)

(From the New England Farmer.)

LIVE FENCES.

MR. FESSENDEN,—If you think the following directions for setting and training a hedge, which were written for the use of my son, will be serviceable to our New England farmers, you are at liberty to publish them. They were written in haste, while I was quite sick, and confined to my chamber; there is considerable tautology, and the language inelegant, but I believe easy to be understood.

BENJAMIN SHURTLEFF.

Boston, Jan. 10th, 1831.

An easy way to make a complete Hedge or Live Fence in a short time.

1. *Material for a hedge.*—The plants commonly used for a hedge are the English White Thorn (*cratægus oxycantha,*) the Purging Buckthorn (*Rhamnus catharticus,*) the Newcastle Thorn, (*Cratægus crus Galli,*) the Three Thorned Acacia or Honey Locust, (*Gleditschia triacanthos,*) the Red Cedar, (*Juniperus Virginiana,*) &c. But I much prefer the American, Virginian, or Washington Thorn, (*Cratægus cordata.*) It seems to have no enemy. In more than half a mile of hedge, I did not find a dozen caterpillars' nests, or one plant girdled by mice during the last year.

2. *Season to set a hedge.*—In our climate a hedge should be set out in the spring, before the plants begin to vegetate, and every fibre of the roots should be taken up with them and by no means be cut off.

3. *Age of the plants.*—The more age the plants have the better; as they are more hardy, have better roots, and are more likely to do well. You will rear your hedge in half the time, if you use those that are four years old and upwards, than you will if you use seedlings. Loudon says, "three years old is certainly the youngest that should be planted, and if they are even six or seven years old, so much the better." Blaikie says, "the age of the quickset plants (whether of one or two years' growth) is not so material, as that the plants should be of free growth." I set one hedge in 1816, with two years old plants, and another in 1818, with seedlings, and they have done very well, considering my inexperience and the awkwardness and unwillingness of my men to do any thing that their fathers and grandfathers had not previously done.

4. *Assort the plants.*—Let your plants be assorted; the large, the small, and the different sizes of intermediates, each by themselves. Set the large on the high, poor and gravelly land, and the small on the rich land, and in the valleys and bottoms, and those of intermediate size on the intermediate kind of land. In this way, your hedge will grow nearly alike and be very even; but if you intermingle promiscuously large and small, the large will grow rapidly and will keep the small down, and your hedge will be uneven and full of gaps.

If you plant the large in the rich hollows, and the small on the poor knolls, one part of your hedge will be years ahead of the others. Either before or after planting, cut off the tops of the plants, about an inch from the root or yellow part, so as to leave an inch of the green bark or top with four buds or eyes.

5. *Spare plants.*—Select a tenth or more of your best plants, and set in your nursery in wide rows, and at a distance from each other in the rows, so that the side branches shall not interfere, that you may fill vacancies in your hedge, should any occur. Manure and hoe them, so as to keep them well ahead of your hedge, so that when set in a gap, they will not be behind their neighbors.

6. *Preparation of the soil.*—Let your land be well prepared, a strip at least eight feet wide, deep ploughed, well harrowed, raked over, and cleared of all sward, sods, grass, and weeds; let it be as well prepared as if you were to sow garden seeds. If any part of the land is poor, harrow and rake in old and well rotted manure that will not ferment, then

plough or dig a trench through the middle, 8 or 10 inches deep, one side perpendicular, and the other with a gentle slope or angle of thirty degrees.

7. *Mode of planting.*—Your land and plants thus prepared, lay your plants on the inclined plane or slope, in a straight line nine inches apart (more or less,) and as deep as they originally were in the nursery, making allowance for the dry dirt that may be blown or washed away; set them so deep that all the yellow part may be completely covered; then with a hoe carefully draw on the mellow earth to cover the roots, and press and pat it down well around them. They had better be set a little deeper than a little shallower, than when in the nursery, and they will bear it, as in the nursery they were perpendicular, but in the trench sloping. It will be best not to fill the trench completely, but to leave it a little concave about the roots that the moisture may be retained, and that you may be able to draw a few inches of pulverized earth every year around the roots, to make them throw out new shoots, and this without raising the surface so much, or making it so convex as to lose the moisture. By laying or sloping your plants, small roots strike down from the old tap roots, and you have a great number of new roots that nourish the plants and keep them firm, and prevent them from writhing about. By cutting off the top of the plant, you will have three or four strong upright young shoots, starting from the surface of the ground, instead of a solitary old one.

8. *Hoeing and clearing.*—Let your hedge be perfectly hoed and kept entirely free from grass and weeds. Care must be taken that the roots, stems, and side branches are not abraded or wounded by the hoe. A little fresh earth ought to be drawn about the roots at each hoeing, and in the autumn all the leaves should be raked away, to prevent the stems and roots from being girdled by mice.

9. *Pruning, &c.*—Prune either early in the spring, about midsummer, or late in the fall, when there is no flowing of the sap. When you planted your hedge, you preserved every root, but you cut off the top, leaving but four buds, these will produce you four large stems as supports. This is all the pruning or trimming the stems or upright shoots must have, on any condition, till they are five or six feet in height; then you may trim them down to the height you mean to keep your hedge, but the side branches should be gently trimmed every year, leaving those longest near the ground, so as to have them broad at the bottom and tapering gradually towards the tops in the form of a cone, pyramid, a young fir or pitch pine.

This trimming of the side branches makes them send out more new shoots from these extremities, which by frequent trimmings will become so thick as to fill up every crevice from top to bottom in your hedge, while the upright shoots, by not being trimmed, will ascend with strength, and support the hedge.

10. *Pruning Instruments.*—Trimming is usually performed with a hedge bill or shears; but a knife with a short and slightly curved blade, thick in the middle, and tapering to a thin and very sharp edge on each side, is preferable to trim off the side branches between the plants. For trimming the sides and cropping the top of the hedge, I have used a scythe. I cut off the heel, and punch two holes in the same end, and make a mortise in the end of a straight pole or snaith, and bore two holes through the mortise, and rivet the scythe to the pole and in the same direction with the pole, and not at right angles as for mowing—I put two nibs on the pole. With this you can cut the sides up or the tops off very quick and neat. In all your cuttings, cut *up* if you wish to benefit your hedge; cut *down* if you wish to ruin it.

11. *Miscellaneous observations.*—Slope the tops of your plants to the north, they will not be so liable to be broken down by snow; or to have their buds injured in the spring, by alternately freezing and thawing—land that has been in culture is preferable to new or sward land.

Two or three rows of white beans or flat turnips, may be sowed on each side of your hedge, but potatoes would shade too much, and onions would poison the plants. Cattle, sheep, &c. must not trample or browse on them.

Forest or fruit trees, (except walnut and cedar) may be set in a hedge forty or fifty feet asunder, they make a beautiful appearance, but trim them up ever so high, they damage the hedge, if not by their shade, they will by their roots. If you do not trim a hedge any, it will be strong and thick at the bottom, giving you beautiful white blossoms and red berries.

12. *Errors and Mistakes.*—In my first hedge my land was tough sward, and not well prepared, and I set my large plants that were two years old, perpendicular; in my second hedge, set out two years after, my land was well prepared, and I set my yearling plants sloping, and it is ahead of the first hedge: had the treatment of both been equal, the first would have been three years ahead of the last. I did not hoe as often as I ought to have done, nor did I clear away the leaves in autumn so well as I should have done. I lost one year's growth of my hedge by planting two rows of potatoes on each side of it, the tops of which grew so luxuriantly, that they completely covered and shaded the plants.

My grand error was in cropping the tops, once and generally twice a year, with the expectation of making the hedge thicker at the bottom, and more perfect throughout, but it had a contrary effect, by throwing out a great number of small shoots at the place cut, instead of increasing the main stem and lower branches, and thickening the bottom as was expected. The oftener I cropped, the more weak shoots came out where cut, and those below dwindled and perished, and the main stem ceased to increase. The top of the hedge became wide, bushy and top heavy, and the bottom open, weak, and destitute of branches. Those I did not crop had large firm stems, and threw out large strong suckers from their roots, and have made a hedge impenetrable to an enraged horned bull. I ought not to have trimmed the main stems after the first or second trimming, till it was six feet high.

18. *Recapitulation.*—Prepare your land in the best manner; use suitable plants of thrifty growth, the older the better; assort and accommodate to the different kinds of soil; preserve all the roots, but crop the tops, leaving only four buds; keep a few in your nursery; set them sloping to the north, and leave the ground a little concave about the roots; keep them clear of grass and weeds, and add a little earth to the roots at each hoeing; clear away the leaves at autumn; trim the side branches carefully, and leave the main stems to nature till they are six feet high, then crop off the tops to the height you mean to have your hedge. It will look like a wedge with the sharp end upwards, and will exhibit a most beautiful appearance.

In eight years my second hedge was a sufficient fence for, or against sheep and cows. By following the above directions, a better hedge can be raised in half the time, and at an expense of less than fifty cents a rod.

(From the New England Farmer.)

SEEDLING POTATOES AND GRAPES.

Mr. Fessenden,—I presume by this time some of our horticultural friends are expecting to hear the result of my third year's crop of seedling potatoes, considering the importance of the article to the farmer, and in fact to all classes of our fellow-citizens. It is a grand desideratum to obtain not only a good potato for the table, but one that shall give a good yield of a fair equal size. To the farmer the crop is perhaps second only to bread. It is with him a staple article, and a standing dish. It forms a part of his morning, noon, and evening repast the year round, and is no mean item to the table of the most opulent.

This is a very extensive experiment; by far the largest of any on record, at least so far as my reading extends, and has been a source of much trouble, time and expense. It is no small thing to crop and keep separate, 1500 varieties for three years. I have been almost on the point of abandoning them more than once. The extent of the experiment had well nigh defeated its end. The potatoes were planted this year about the middle of April in rows; the most of the land was very poor, the year before it was overrun with white birch; it was pretty well manured, the manure spread equal to a good shovel full to a hill; a considerable proportion of the manure, however, was composed of meadow mud. The land was overseeded, owing to my anxiety to give every variety a trial; and a considerable proportion of the potatoes was under size, which probably gave me a larger crop and a greater proportion of small potatoes than I should otherwise have had. They were planted on about four acres of land and yielded me by estimation 1000 bushels, 900 of which were condemned to the hogs. There were long reeds planted in three different places for a guide in determining their relative yield; for I was determined, having "screwed my courage to the sticking place," that I would reject all those that would not bear a good comparison in point of yield: and in reference to my memorandum, I find that I have not saved more than three or four kinds, that yielded less. The way in which we determined the relative yield, was by measuring the ground with the hoe handle, which was quickly and easily done, and was sufficiently accurate for our purpose, and the potatoes in a measure. The hoe handle was about four feet in length. We carried into the field with us boxes, bags, kegs, &c. sufficient to hold all that we could dig in half a day. At noon and at night they were put in piles on the cellar floor, the vessels in which they were put was marked with the number of hoe handles to the bushel, and the pile in the cellar with a corresponding number. We provided a circular board, a little smaller than the bottom of a boiler we have set in brick work, and in this board we inserted 30 or 40 wires about 12 inches long. The wires were placed circular in the board, gradually progressing towards the centre, so as to form a spiral line from the outside to the centre. Now if each pile of potatoes in the cellar was numbered and we commenced on the outside wire of our board and proceded regularly, we could easily tell from which pile each of the potatoes on the board came. and in this way we could try at night all the varieties we could dig in the day time. After the potatoes were boiled on this board in the boiler aforesaid, we carried the board with the potatoes on it down cellar and compared them to prevent mistakes. In making up our judgment, regard was had to the appearance of the potatoes as well as their yield and flavor—their form, mealiness, &c. were all taken into the account. I have given them my personal attention both in planting, digging, and proving, except when called away by urgent business.

In this way I have preserved 186 sorts of my 1500 varieties and about 72 bushels in quantity.—The long reds yielded about 12 hoe handles to the bushel. The greatest yield of my seedlings was four hoe handles to the bushel, three times as much on the same land. The kind that yielded the most last year did not do so well this year; they were a late kind, and required a long season and a favorable situation to come to maturity. Perhaps an abstract from my memorandum might be interesting, as showing the relative yield; for we found it utterly impossible to decide with any justice upon the flavor, for after we had tasted of a few, especially if we happened to try a strong one, we could no longer decide upon the merits; we therefore contented ourselves with tasting only those which by their mealiness, appearance, &c.

gave the most promise, saving all the good yielders that cracked open in boiling. I have a considerable number, however, marked on my memorandum as of superior good flavour. I have one kind which gave a bushel in 4 hoe handles; 2 kinds, 4½ do; 4 kinds, 5 do; 2 kinds, 5½ do; 9 kinds, 6 do; 3 kinds, 6½ do; 16 kinds, 7 do; 41 kinds, 8 do; 29 kinds, 9 do; 23 kinds, 10 do; &c.

There are two kinds which particularly attracted my attention while digging, and were named on the spot. One was round, red, rather above the middling size, and very equal in size, so much so that they would not require any picking for the market; the other was yellow and like the first in every other respect. The first was named the *Roxbury Reds,* the other the Roxbury Oranges; their yield was about five hoe handles to the bushel. They were not so mealy nor of so good flavor as many others of less yield, but their yield and size must, I think, make them a valuable potato to the farmer. The vines of my largest kinds died down to the ground in the fore part of July, but were left in the ground until the rest were dug, when to my astonishment, I found that they had not only sprouted, but the vines had grown nearly a foot in height, and on digging them I found new potatoes set for the second crop.

I have now given you as concise an account as I could conveniently and make it intelligible; and hope it will answer the expectations of our friends, and that the experiment will prove, in proportion to its extent, and the time and labor spent on it, beneficial to *our* community. So far as regards myself, I have no expectation of being remunerated, for I am essentially deficient in an important requisite to an enterprising and flourishing farmer, viz. that of making the most of it in the market.

I have also under way and under glass, about 200 seedling grape vines of two years' growth, raised from the seed of the large oval Malaga grape, which appear very promising, but I shall not probably, if I should live, taste the fruit until year after next, when I hope to be able to present a sample which shall be thought worthy of receiving a name from our horticultural society. Jacob Tidd.

Roxbury, Jan 10, 1831.

MEADOW LANDS.

To the Editor of the New England Farmer—

Sir,—Having noticed in your paper of the 21st inst., several inquiries by your correspondents, which I have it in my power to answer, I beg leave to place the results of my practical observations, at your disposal.

Your correspondent J. B. of Winthrop, (Maine,) asks "information respecting flooding meadows, where fowl meadow, blue joint, and the common flat grass and other kinds of uncultivated grasses incline to grow." The two former kinds of grass are among the most valuable products of our natural meadows, and their growth is best promoted by *winter* flooding. Several years since, I had on my farm a tract of waste, wet, and unproductive swamp, over part of which was a thick covering of perennial moss with scarcely a blade of grass, and on another part, a growth of bulrushes, flags and coarse water grass of unsightly appearance and no value. This swamp was reclaimed, and is now made a beautiful and rich meadow, giving abundant crops of fowl meadow and blue joint grasses, by the simple operation of flooding. There were springs of cold water in the land, and ditches were made to draw them off, in the summer season, through a natural outlet to the swamp. An embankment across this outlet was constructed with a flume and gate, by which the rains might be retained and the meadow flowed, or the water let off at pleasure. The practice has been to shut down the gate in the flume, about the 10th or 15th of November, and to raise it first in the spring, after the termination of severe frosts; and occasionally when there are showers in the early part of the summer, to set the water again, for a few hours, over the meadow. No grass seed has ever been sown, nor has any expense been incurred, except in the ditches, dams, and flume, which are cheaply done;—and no application has been made to the land, other than the water. This, in the winter, stands at the height of from one to three feet over the surface of the ground. The moss, and rushes and flags, have now entirely disappeared, and the product of grass may safely be estimated at the average rate of from two to three tons to the acre.

I have no personal experience of any husbandry which has been more satisfactory. The land, from being loose, spongy, and miry, is made firm from being compressed by the weight of the superincumbent water through the winter, and is filled with the roots of the grass, which are thus preserved from destruction of the frosts, and I have little doubt, that in a few years, this once impassable morass, may be travelled over by cattle and teams, at pleasure.

FRUIT TREES.

In answer to "one of your readers," from South Reading, I have to reply, that I have suffered a like injury, although in a slighter degree, from the teeth of calves in barking my young apple trees; but I have also learned an effectual preventive to its repetition. Early the last spring, I caused the trunks of the trees in a young orchard, to be brushed over with a composition of lime, clay, and fresh manure from the cattle linter, mixed together and made of the consistency of a thin paste, and afterwards and during the whole summer season, I pastured several calves in the enclosure, without the slightest injury to a single tree. While the calves would freely gnaw the rails of the fence,and the clean branches of trees thrown in to them, they would refrain from the standing trunks, upon the first touch of their tongues to the composition. I consider this mode of preservation effectual, and believe you have already pointed out to your correspondent, the only remedy for the mischief he has already sustained.

With great interest in the cause of Agriculture, and high regard for your valuable contributions to its advancement,

I am, sir, truly with respect and esteem,
Your obedient servant,
Boston, Jan. 25, 1831. Levi Lincoln.

(From the New England Farmer.)

CULTURE OF FLAX.

Mr. Fessenden,—Mr. Nathan Prindle, on the west bank of the Connecticut in this town, sowed a field with flax seed about the 8th of May last. The crop was unusually large and heavy, and the seed very abundant: he pulled this on the 25th of July; much of the seed fell in this process. Immediately he sowed turnip seed on this field, and covered it with a brush harrow. In a few days, there sprang up an abundance of both turnip and flax. This last grew slowly, but to the common size, and about the 1st of November, put forth flowers, which were as large and as full as those of the first crop. This flax continued in full bloom, till long after the frost had destroyed every other annual plant. Mr. P. pulled this on the 19th of November; I saw it then; the flowers were scarcely shrivelled and the leaves not affected by the frost. The corollas were of usual size, the capsules were somewhat dilated, and the seeds formed, though green and milky. The stalks were thinly scattered, but they were as heavy as those of the former growth. It was thought this was more than one third as large as the other crop and probably if as much seed had been sown, it would have been equal to that.

The crop of turnips was as large as usual, some of them were very large: one, which I had in my room measured about 20 inches in circumference.

This instance affords to our farmers, a suggestion whether two crops of flax could not be raised on the same field in one year. Here it is to be noticed, that the seed for the second crop, was of this year's growth; could this have any effect in accelerating the growth of the second crop? Will the development of the vegetable life in the seeds be any more rapid, if there be no suspension of vital action between the process of formation and ripening in the parent plant, and the sprouting of the new plant? We know that some seeds must be sown as soon as they fall from the tree, else they will not sprout. Others may be preserved for centuries, without impairing their vital power. But is there no difference in the rapidity of the growth of plants raised from the seeds?

The second crop of flax had the advantage of the immediate sowing, and though it had but a few weeks of sunny summer and grew mostly in sterile, frosty autumn, it had all the fulness and vigor of the more favored crop, and resisted the frost even to the last of November, which I had not supposed belonged to the vitality of any flax.

Whether the continuance of the active life in the seed had any effect in this, I cannot say: but it is a question worth the thought of the vegetable physiologist. I leave it for your consideration, or for some of your correspondents to answer.

I send you herewith specimens of both crops.

I am, sir, yours respectfully,
Edward Jarvis.
Northfield, Mass. Dec. 27, 1830.

HORTICULTURE.

(From the Genesee Farmer.)

TRANSPLANTING TREES.

Two very opposite opinions are taken and maintained, by nursery-men and gardeners, as to the proper time of transplanting trees, one recommending the autumn, and the other the spring, at, or before, the swelling of the bud. But as there probably is a best time, and as an old *chum* of mine used to say, "*the best way is as good as any,*" let us look at the facts and circumstances of the case, and try to draw a *rationale* in favor of one or the other system.

The sap, or the water that forms the sap, is taken up by a set of fine tufted. hair-like roots, or capillary vessels, which are always at, or about the extremeties of the main roots, and which are principally lost in taking up, both by cutting them off, as well as by the loose earth being shaken off from those roots which are taken up with the tree; this happens alike to both theories. Now when, or at what period, are these important agents, on which the future *vegetability* depends, the most likely to be reproduced? for it appears by a set of accurate experiments made in England, that they are renewed with wonderful rapidity, in certain seasons; and it also appears by a set of experiments by Duhamel, instituted for the purpose of determining whether the circulation stopped with the fall of the leaf, that it does not, but is continued in a sluggish and dull manner, from the period of deciduction, or fall of the leaf, till the putting out again in the spring, and that a continual elongation of the fibrous roots were plainly perceptible every two weeks that the plants subjected were examined, and even the same plants blossomed and perfected their seeds, only in winter. These observations were made where the thermometer ranges from 10 deg. below, to 30 above freezing, during winter months, and would not apply to any of our weather that is below freezing point: now if there is a circulation going on after the fall of the leaf, and an increase of the mouths that feed the system, then, I think, at, or immediately before the fall of the leaf, is the best period; as the fall rains, winter snows, and spring thaws, certainly close the ground, and bring the fine particles of the soil in contact with the roots, in a better and more natural manner than any spring operation that they do or can undergo: and especially if the trees have to be transported any distance, and are received late. On the other hand, it is maintained by those that recommend spring planting, that the leaves are the only manipulators and manufacturers of the sap that forms new wood, or can create new roots, and that if there is a circulation, it is only in the anterial system, and is only consequent on expansion and contraction by heat and cold; and therefore a tree taken fresh from its native soil, with all its energies just commencing and bursting into life, with a genial sun, and refreshing showers, is the proper time to transplant any tree. To all this, I offer the following objections: that very warm forward springs bring out the buds prematurely, and expose them to frosts, to which the autumn set tree is not as liable, and a tree may be set in the fall, and have from two to three months without much freezing weather. The roots are firmer fixed, and more of them produced, and the danger of the bleeding of the roots, when cut or broken in the spring, is lessened. To which allow me to add my own experience, as well as that of a majority of the best gardeners I have found in the country. Peach, plum, and apricots may be an exception to my theory, as in fall planting, the small limbs sometimes winter kill, and I have known the peach to do well when set out in the blossom.

(From the New England Farmer.)

FRUIT TREES.

Mr. Fessenden—Although commendable efforts have been made in several parts of the country, to introduce and multiply most of the choice varieties of fruits, and our cities are now tolerably well supplied, from the gardens and orchards in their immediate vicinities, still, there is a lamentable negligence, of this important culture, throughout the union. Without going beyond the bounds of our own Commonwealth, how rare is it to find any fruit, other than the most indifferent wilding apples, save in a few gardens, or estates in some of the most flourishing villages. Strawberries, raspberries, cherries, apricots, plums, peaches, pears, and grafted apples are so little cultivated, that a large portion of the inhabitants never even taste them, during the successive seasons of their maturity; and every owner of an acre of land, could annually enjoy them all, with but trifling labour and expense. A few rods of ground appropriated to a nursery, would afford stocks for all the kinds of fruit trees which flourish in this climate. Scions or buds, of the best varieties, are easily obtained; and in a few years, each house, however humble, may be embowered in the shade of many of the most excellent kinds of fruit trees, affording not only an abundant supply to the family during summer and autumn, but during winter, and until strawberries and cherries announce the commencement of a new pomonal year.

A few hours in the morning and evening, could be devoted to a fruit garden, which, without interfering with the other duties of the farmer or mechanic, would insure the comforts and pleasures of its products to the whole family.

There is a too general impression, that much skill and great labor are indispensable, to manage fruit trees successfully, but the same intelligence and attention which insure a harvest of corn and grain, are the only requisites. Those who have made the experiment, will vouch for the truth of this assertion; and there are but few farmers, who are willing to acknowledge, that their neighbors are more able than themselves, or can use the implements of their profession with better judgment, adroitness, and success: still they must perceive, that there are individuals, in their vicinity, of neither greater capacity nor means, who exhibit vigorous trees and beautiful fruit. —Why, then, with equal talent and resources, are not such meritorious experiments imitated?

There is one objection, which is very generally urged for not establishing a fruit garden,—the depredations which are committed upon them. To prevent this, it is only necessary to make them universal, and thus leaving none to intrude—for all being either in possession of the luxuries which they afford, or enabled to purchase them at a moderate price, the temptation to plunder is removed. Who, but the most abandoned, robs a corn or potato field? Equally secure would be the fruit trees, if they were rendered as common.

But as to this too common vice, are we not all, in some degree, accountable for its existence? Is it treated with sufficient seriousness? Is not the pilfering of fruit thought much too lightly of in the community? And are not children induced to view it, as a very slight, and even an excusable offence,—something to be laughed at, rather than to be denounced; and all this from the indifference with which parents are apt to regard such transgressions? In point of criminality, where is the difference between stealing fruit, or the fence which encloses it,—an apple, or a plough,—cherries, or silver spoons,—melons, or any other article belonging to the proprietor? If the law has not made it theft, it is an offence punishable by a heavy fine. Morality is as much outraged, by taking a peach as the spade at the door, and to treat such acts in children, as unworthy of reproof, is a dereliction of duty, which neither virtue or religion can tolerate: for the doing wrong in the slightest manner, is most often the commencement of a career of depravity, which brings disgrace and ruin upon the deluded or heedless offender.

A man's ground should be considered as sacred as his house; and every article on his estate, as secure against robbery, as if it were protected by locks and bars. The very fact that most of the property of the farmer is exposed, and without any other protection than the morals of the people, makes it still more imperious, that such an exalted sense of honor and honesty should be inculcated, as to give not only security to the products of rural industry, but a confidence beyond the sanctity of the laws. Of what value are morals, which are limited by the statute book, and consist in doing whatever does not subject the individual to the penalties of the criminal code? But placing this subject in the most favorable light, for those who have been in the habit, of either deeming it of such little moment as not to merit grave consideration, or as a foible incident to youth, and not very objectionable at any age, still they are bound to change their conduct;—this, *politeness and common decency of manners* require. If they believe there is no great harm in *taking*, there is much of *rudeness* in not having the *civility* to first *ask permission*. If what is desired, is of small value, it will most commonly be cheerfully granted, and the donor is happy to have it in his power, to do an act of kindness, and the receiver if not grateful, he at least has the satisfaction of reflecting, that he has acted like an honest man, and a christian, and that he has observed the courtesies of life. Should, however, the owner refuse the boon, there is still consolation; either it was of greater value than had been presumed, and thus an injury has been prevented; or he was not of a generous disposition; and then comes the ejaculation,—thank God, there are but few such men! let the odium be upon him; our hands are unstained.

On the continent of Europe, there are but few fences in the country, the grounds are unprotected even on the highway, and although burdened by grape vines and trees loaded with delicious fruit, no one thinks of taking the smallest quantity, without the approbation of the proprietor. Lady Morgan observes, in her travels, "that property of this description is held sacred, in proportion as it lies exposed. Having alighted from our carriage, to spare the spring, in a rough road, that wound through a wilderness of fruit trees, I asked a boy who was lying reading under one of these, whether I might take an apple: he replied coolly, 'they are not mine.' But you sometimes help yourself, I dare say. He raised his head, and, looking at me, with an expression of humorous sarcasm, he replied, 'you mean that I steal; do you not, madam? No, madam, *it is better to ask for one, than to turn thief for an apple*.' "

If horticultural societies were established in each county, for no other purpose than to collect seeds, buds, scions and plants, for distribution, much could be effected in a few years towards covering our naked fields with fruit trees. A very small fund would be sufficient for this purpose, and when the members had obtained the best varieties, how rapidly would they be disseminated among the inhabitants of every town. Besides the benefits which would be derived from an abundance of excellent fruit, vegetable gardens would naturally claim more attention, and a taste for flowers, and ornamental trees and shrubs, would soon be induced, and at last universally prevail.

With the picturesque topographical features which Massachusetts presents, nothing is wanting to render its scenery as interesting, and its villages as beautiful, as those of any other country. In England, scarcely a cottage exists that is not surrounded by fruit trees, shrubs and flowers, while the neat esculent compartment,—often containing less than a rood of land, supplies much of the food for the industrious inmates of the modest dwelling. In Holland and Germany, it is the general attention which all ranks in society bestow upon the grounds about their habitations, which gives such a pleasing aspect to those countries.

Why then should not such examples be emulated in the United States, where the industrious are so independent in their rights, and domestic circumstances; where there are infinitely greater means, within the command of the cultivators of the soil; where each is the lord of the domain in which he resides, and garners up his undivided harvest, free and exempt from all exactions.

Besides the pleasure, comfort, and economical advantages, which are derivable from well managed fruit and vegetable gardens, their sanative influence is of inestimable value—not only as respects the fortunate families which directly participate in the various products they afford, but the whole community. That fruit is not merely healthy, but is even an antidote and cure for many diseases, there is not the least doubt. We have the opinion of the ablest physicians in support of this position; but as very erroneous impressions are still prevalent on this subject, it is believed that the following extract will be read with interest;—at least by all lovers of fruit.

Accept assurances of my great respect.

H. A. S. Dearbon.

Brinly Place, Dec. 20, 1830.

(From the Genesee Farmer.)

THE ROSE.

DIRECTIONS FOR CULTIVATING IT.

The rose may justly be termed the queen of flowers; and there are but few people who are not more or less pleased with their cultivation. The first object to those cultivating, is, to procure choice varieties, as to beauty and fragrance of the flower; next to these qualifications, handsome shaped tops, upon hardy free-growing stocks. Most kinds of roses are disposed to grow low and branching, making rather an unsightly hedge, than otherwise; to correct this, and perpetuate the most desirable varieties, are the objects of the floriculturist. Roses are propagated by seeds from single roses, by layers, offsets, or cuttings. The former method is to be preferred where handsome, straight, clean stems are wanted. Varieties may be continued by budding or grafting. As the sweet or green brier, common in the New England states, is the hardiest of all the roses, so is it better calculated for stocks, than most other kinds. Those who would propagate them by seeds, should gather them in autumn, and bury them in some convenient place, where they should be allowed to remain until the second spring, as they will not vegetate the first season after planting, but require to lie in the ground through two winters; the second spring they should be taken up, and planted out in ridges, raised six or eight inches above the level of the surrounding surface.—When the seeds have vegetated, and the young plants have attained the height of three or four inches, begin to level down the ridges, by removing the earth from the roots, at the same time cutting away the horizontal fibres, leaving only the tap or perpendicular root. This operation should be repeated, as the plant increases in size, until the ridge is reduced to a level with the surrounding surface. By this operation, the body of the young plant is extended six or eight inches below the cotyledones or seed leaves; and, as there are not any buds formed below them, that part of the body gained from the root, will be free from sprouts. By this method, young trees may be raised, which will not be troublesome by throwing out suckers or sprouts, and the body may be kept free from side limbs, as easy as an apple tree. When the stock has been thus raised, it may be budded or grafted as other trees. The spines upon that part of the stock to be operated upon, should be removed some time previous to the operation, and when the stocks are headed down, the ends should be covered with grafting wax, to prevent water from penetrating the pith.—As the green brier is a free grower, those stalks intended for training about windows should be budded or grafted high. Some people are fond of having different kinds of roses upon the same stalk, but they do not form as handsome heads as those which have but one kind. Roses, like other trees, should be pruned in the spring, and those who would have flowers in perfection, should keep the top of them of wood, and shorten the luxuriant growths of the preceding year. Those who wish to cultivate new varieties should sow the seed from fine single ones, and if seeds can be procured from bushes where a number of different kinds grew in contact, the chance for variety will be greater.

RURAL ECONOMY.

(From the Kenawha Banner.)

CURING BACON.

Good bacon is so important an article in a Virginia family, that I am induced to offer to young house keepers and others not practised in preparing and preserving it, the following directions; by the observance of which I think their bacon will do credit to their tables.

Hogs, weighing from one hundred and fifty to two hundred, are to be preferred, and they should be corn fed for at least five or six weeks. Corn fed pork may be distinguished by the appearance of the kidney fat, as it will be hard, and crack into small squares like beef-suet; those should be avoided whose fat is more tenacious and inclined to transparency, adhering to the fingers, and bearing the complexion of lard.

The salt should be of pure quality; that taken from the kettles when somewhat more than half boiled down, or found in the pans after cooling is most to be relied on.

To every thousand pounds of meat, put three pecks (by measure) of salt, with which a pound of pulverized saltpetre has been previously and thoroughly mixed. This composition is to be well rubbed on, and then sprinkled thickly on the outside of the meat. There is no danger of oversalting from quantity; it is length of time which has that effect.

The meat is now to be laid with the skin side down, in good casks or troughs, with salt sprinkled over the bottom; the hams and shoulders first, and then the middlings and small pieces. On the fourth or fifth day the meat should be taken up, and again well rubbed with salt, to which should be added, whenever it can be procured, a teaspoon full of powdered garden pepper, to each piece; and the meat replaced as before, after removing any bloody brine, or other impure matter that may have collected in the troughs or casks. At the end of two weeks, if the meat is kept without freezing, all the pieces except the hams and shoulders, will be salted sufficiently, and should then be removed, at which time the remaining pieces should be re-packed, placing those which appear least salted, lowest down. A change of position is absolutely necessary, because the pressure will prevent the passing of the brine through the meat, if not turned.

In three weeks from the first salting the shoulders are to be removed, and in four weeks the hams. Every piece on taking out for smoking, should be cleanly washed, by dipping a cloth in hot water and taking off the salt, brine and dirt; this washing promotes the drying of the meat, and further tends to equalize the saline flavor throughout the piece, and should not be omitted.

To make good bacon, the meat should be hung with the thickest part upwards, to prevent the exudation of its juices, and each piece clear of the wall, or other pieces, and there left until it is quite dry. Some sound chips, with a few billets of hickory wood, or corn cobs, make the best smoke, and also keep the house warm, which is important, for if the smoke-house is cold, all former care will be in some measure lost: a damp will settle on the bacon, and it will have a bitter flavor. Bacon should never be smoked in damp weather, as is too often practised, as by it the meat gains nothing in color, but acquires a bad taste; one or two good fires each day, will smoke the pieces, in precisely the same time required for salting; that is to say, hams 4 weeks, shoulders 3 weeks, and middlings and other pieces 2 weeks.

I have used red pepper with, I think, decided advantage, by throwing a few pods into each fire while smoking; this article, in salting or smoking, or in both, improves the flavor of the meat, and tends to secure it against insects. If the meat house is dark and cool, the meat may be left hanging until wanted for use; but if otherwise, it should be taken down at the commencement of warm weather, and packed away in salt, clean hickory ashes, or oats; either will secure it from insects, or dripping, if the meat be entirely covered over, and the interstices between the pieces properly filled. The use of dry salt will not increase the saline flavor of the meat. I have known bacon very finely preserved, by preparing a strong ley of wood ashes, concentrated by boiling, into which, when cold, the pieces were dipped.

The alkali and the oil of the meat, forms a coating of soap in all the crevices, as well as on the surface, which is an admirable protection against the insect tribe.

Some attention should be paid to the construction of the smoke house. As before observed, it should be rendered warm during the process of smoking, and if it is to retain the meat through the season, should be cool, dry and dark. A brick stove in the centre of the floor, with openings for the escape and ascent of the smoke in the sides, is among the best contrivances usual among us; but this becomes heated, and does not entirely obviate the danger arising from the occasional falling of the meat, by which houses are not unfrequently burned. It will probably be more safe and convenient to build a chimney, with a very low fire-place, as for a sitting room, and when the chimney is carried up four feet, close it at top. A small grate placed a few inches from the hearth, will assist the burning of the wood. By having a chimney thus constructed, the blaze of the fire can never injure the house or the meat; no pieces can fall into the fire when a string or nail gives way, and whilst the blaze and smoke ascend the blind chimney, the smoke must descend again and pour into the smoke house. The plan is highly recommended for its safety and convenience, by a gentleman whose advice is entitled to great respect, and to whom I was originally indebted for several of the directions here given, the value of which I have verified in the course of my own experience.

An Admirer of good Bacon.

CIDER.

To make the best cider, there are several requisites. The apples should be of one sort, and of the best kind. They should be perfectly sound, ripe, and clean. Those which are shook from the trees by a gentle shaking, are best; and all knotty, wormy, and rotten ones, should be rejected. Such as are not of this prime rate, may be made into common cider.

The apples thus selected, should be spread on a floor, raised from the ground, with a cover over it, and the sides enclosed. Here they are to lie for the purpose of sweating. They should lie about four or five days, when the weather is dry and warm, but longer when wet and cold: and let them be dried by exposure to the sun, the rotten ones thrown away, and ground immediately in a clean mill.

When the cheese is made, it should stand about twelve or fourteen hours, before the press is put upon it; for this delay in pressing, will greatly improve the cider.

The best plan of making the cheese, is, to cut off the butt end of the straw, and lay it along on the four sides, with the cut ends projecting out about four inches on each side, beyond the extent intended to be given the cheese. Then, with a straight smooth board, made for the purpose, about five inches wide, and of sufficient length, you commence forming one side of the layer of pumace, by building it up compactly against the board, which is set upright on its edge. When that side is formed, take away the board, and in the same way, proceed to form the next, and so on till the four sides are built up. Then lay on another layer of straw, as before, and proceed with the board; build up the four sides of the next layer of pumace, and thus you proceed building up the cheese as nearly perpendicular as possible.

In this way, the cheese, by having the straw to lap well in the middle, or centre, is in no danger of bursting open in pressing, as is often the case, when large cheeses are made in the common way, with the straw brought round the outside of each layer of the pumace. We have seen cheeses made in the manner recommended, large enough to run off 24 barrels of cider.

The first and last running of a cheese should be put by itself, as it is not so good as the rest. In pouring the cider into the cask, let there be a strainer of coarse cloth in the bottom of the funnel, to keep out the pumace. New casks, or those which have just been emptied of brandy, are the best. If old casks are to be used, it is of the utmost importance to have them perfectly clean. When they are first emptied, they should be well washed, and then bunged up tight. For want of this precaution, they often become musty, and then they spoil all the liquor afterwards put into them.

The only successful method of cleaning musky casks, we have ever heard of, is that communicated by *M. Lenormandes*, which he learned of a French peasant, as appears in "the Annals of Arts and manufactures," published in France, and is as follows:

"Make up in quantity what will be equal to about a sixteenth part of what the cask to be cleansed will hold, of the following ingredients, viz: about four pounds of common salt, and one of allum added to mixture of water with fresh excrements of a cow, (no other will answer;) put the whole in a pot and heat it almost to boiling, stirring it constantly; put it thus heated into the cask, and shake it well, turning it round on every side, and continue shaking it every hour or two, taking out the bung while shaking, lest it burst.

When its contents have become cold, pour them out, and rinse it clean; then pour in some hot water, in which about two pounds more of salt, and one of allum, have been dissolved; shake the cask well on every side, as before, and while the water is yet warm, pour it out; drain the cask, and bung it up tight, till wanted for use.

MISCELLANEOUS.

AGRICULTURAL CHEMISTRY.

Agricultural Chemistry, according to Sir H. Davy, has for its objects, all those changes in the arrangements of matter connected with the growth and nourishment of plants; the comparative values of their produce as food; the constitution of soils; the manner in which lands are enriched by manure, or rendered fertile by the different processes of cultivation. Inquiries of such a nature cannot but be interesting and important, both to the theoretical agriculturist, and to the practical farmer. To the first, they are necessary in supplying most of the fundamental principles on which the theory of the art depends. To the second, they are useful in affording simple and easy experiments for directing his labours, and for enabling him to pursue a certain and systematic plan of improvement.

It is scarcely possible to enter upon any investigation in agriculture without finding it connected, more or less, with doctrines or elucidations derived from chemistry.

If land be unproductive, and a system of ameliorating it is to be attempted, the sure method of obtaining the object, is by determining the cause of its sterility, which must necessarily depend upon some defect in the constitution of the soil, which may easily be discovered by chemical analysis.

Some lands of good apparent texture are yet sterile in a high degree; and common observation and common practice afford no means of ascertaining the cause, or of removing the effect. The application of chemical tests in such cases is obvious; for the soil must contain some noxious principle which may be easily discovered, and probably easily destroyed.

Are any of the salts of iron present? they may be decomposed by lime. Is there an excess of silicious sand? the system of improvement, must depend on the application of clay and calcareous matter. Is there a defect of calcareous matter? the remedy is obvious. Is an excess of vegetable matter indicated? it may be removed by liming, paring, and burning. Is there a deficiency of vegetable matter? it is to be supplied by manure.

A question concerning the different kinds of limestone to be employed in cultivation, often occurs. To determine this fully in the common way of experience, would demand a considerable time, perhaps some years, and trials which might be injurious to crops; but by simple chemical tests, the nature of a limestone is discovered in a few minutes; and the fitness of its application, determined.

Peat earth, of a certain consistence and composition, is an excellent manure; but there are some varieties of peats which contain so large a quantity of ferruginous matter, as to be absolutely poisonous to plants. Nothing can be more simple than the chemical operation for determining the nature, and the probable uses of a substance of this kind.

There has been no question on which more difference of opinion has existed, than that of the state in which manure ought to be ploughed into the land; whether recent, or when it has gone through the process of fermentation: and this question is still a subject of discussion; but whoever will refer to the simplest principles of chemistry, cannot entertain a doubt on the subject. As soon as dung begins to decompose, it throws off its volatile parts, which are the most valuable and most efficient. Dung which has fermented, so as to become a mere soft cohesive mass, has generally lost from one-third to one-half of its most useful constituent elements. It evidently should be applied as soon as fermentation begins, that it may exert its full action upon the plant, and lose none of its nutritive powers.

It would be easy to adduce a multitude of other instances of the same kind; but sufficient has been said to prove, that the connection of chemistry with agriculture, is not founded on mere vague speculation, but that it offers principles which ought to be understood and followed, and which in their progression and ultimate results, can hardly fail to be highly beneficial to the community.

EDGING RAZORS.

Mr. Knight, in a paper "on the means of giving a fine edge to razors," in the Journal of the Royal Institution of Great Britain, states the following to be a prodigious improvement upon the methods hitherto in use. The machinery consists (he tells us) "of a cylindrical bar of cast-steel, three inches long without its handle, and about one-third of an inch in diameter. It is rendered as smooth as it can readily be with sand, or, more properly, glass paper, applied longitudinally; and it is then made perfectly hard. Before it is used it must be well cleaned, but not brightly polished, and its surface must be smeared over with a mixture of oil and the charcoal of wheat straw, which necessarily contains much siliceous earth in a very finely reduced state. I have sometimes used the charcoal of the leaves of the *Elymus arenarius,* and other marsh grasses; and some of these may probably afford a more active and (for some other purposes) a better material; but upon this point I do not feel myself prepared to speak with decision. In setting a razor, it is my practice to bring its edge (which must not have been previously rounded by the operation of a strop) into contact with the surface of the bar at a greater or less, but always at a very acute angle, by raising the back of the razor more or less, proportionate to the strength which I wish to give to the edge; and I move the razor in a succession of small circles from heel to point, and back again, without any more pressure than the weight of the blade gives, till my object is attained. If the razor have been properly ground and prepared, a very fine edge will be given in a few seconds; and it may be renewed again, during a very long period, wholly by the same means. I have had the same razor, by way of experiment, in constant use during more than two years and a half, and no visible portion of its metal has within that period been worn away, though the edge has remained as fine as I conceive possible; and I have never, at any one time, spent a quarter of a minute in setting it."

ON CASEUM AND MILK.

Soluble Caseum, and its Applications.—2500 parts (grammes) of the curd of new cheese, as sold in the market, were heated to 212° for some time: it contracted, and became a glutinous elastic mass, swimming in much serum. Being washed in boiling water, to remove the acid serum, and dried, it weighed 469 parts. It was a compound of caseum with acetic and lactic acids: being divided, put into sufficient water with 12.5 parts of crystallized bicarbonate of potassa, and heated, it dissolved with effervescence, producing a mucilaginous liquor, distinctly reddening litmus paper. Being evaporated carefully with continued agitation, it left a soft portion, which, as it cooled, acquired consistency, was drawn out between the fingers into thin portions, and then dried in the air upon a sieve: it weighed 300 parts. This *soluble caseum* is a surcaseate of potassa, containing still butter and salts.—It resembles isinglass, is of a yellow-white colour, translucent, and of a stale taste: it is perfectly soluble in hot or cold water, producing a fluid milky by the presence of butter.

In this impure state the substance is easily prepared instead of the bicarbonate, the potash of soda of commerce may be used. The following are hints for its application. Like gelatine, it may be preserved without alteration for any length of time, and may be obtained in enormous quantities, if required. Associated in various ways with food, it must prove of the greatest importance on board vessels for long voyages. In aqueous solution, sugared and flavoured with a little lemon-peel, makes an agreeable and nourishing drink for invalids. It is a powerful cement: its solution, evaporated on glass or porcelain to dryness, cannot be removed without injury to the vessels; its hot concentrated solution has been applied with great success to join glass, porcelain, wood and stone. The same solution forms a brilliant varnish: being applied to paper, it makes labels which, when moistened and attached, adhere with great force. It may be used instead of isinglass in dressing silks, ribands, gauze, preparing artificial flowers, &c.—It has not answered in endeavours to clarify beer, but is equal to milk or cream in the clarification of table liquors, giving them the softness and qualities of age. It may be used in place of creamed milk in the clarification of beet root sugar, syrups, &c. in conjunction with animal charcoal, without exciting any fear of regarding the presence of serum. M. Braconnot thinks also, that by the help of a little ammonia, the greater part of the curd previously separated as above from its serum may be taken up and converted into a dry substance, which with the help of earthy salts, will be of great service in clarification: for, having dissolved some of this preparation in water, a small quantity of muriate of lime, sulphate of magnesia, or even sulphate of lime in powder was added: the liquid remained clear whilst cold, but the slightest effect of heat made it coagulate uniformly throughout; the coagulum gradually contracted, and a perfectly clear liquid issued from it.

Milk has always been considered as a certain antidote in some cases of poisoning. The soluble caseum will perform the same office against most of the metalic salts, but there is reason to believe that white of egg is better than either against corrosive sublimate.

The average duration of human life in France has been greatly prolonged since the revolution, which is mainly attributed to a large portion of the people being enabled, by the more equal distribution of the land, to live in a state of greater comfort than formerly.

THE FARMER.

Baltimore, Friday, Feb. 4, 1831.

Leaf Manure—Orange Farm.—The recommendation of leaves as a manure by Mr. Meade of Virginia, merits attention. Their value has been satisfactorily ascertained at Orange Farm, in the vicinity of Baltimore. At this farm, they are collected by large rakes, large baskets and large carts. They are in the first instance, spread in great abundance as a bedding for about 100 cows, besides calves, oxen, horses and hogs. The cow stables being spacious and well ventilated, the cows are kept in them, day and night, during the whole winter, and during the cold, cool and wet weather of the other seasons. Each cow has her appropriate stall and halter. Their dung and urine fall into a trough, which extends the whole length of each stable, so that they lie not at all on their own dirt. Into these troughs, certain portions of the leaves are occasionally raked. Their entire contents are twice every day removed by wheelbarrows into the barn-yard, and thence they are taken into the fields in carts, with wheels so broad, that this all important work is never interrupted by the wet and soft condition of the ground. At this farm, it has been found that dung mixed with leaves, is spread on the fields much more easily, and what is infinitely more important, much more equally, than if mixed with straw.

By thus using leaves, all the straw and corn stalks are cut, and by a simple steam apparatus, are boiled with certain short feed and converted into food. It may appear that the cutting of so large a quantity of straw and corn stalks, must be excessively laborious. The fact, however, is, that the labour of cutting is performed by two or three dogs, and the labour of feeding the machine, may be performed by a boy or a woman. These dogs, moreover, without the attendance of any person, do pump all the water necessary for the whole stock, as there is no spring or running water on the farm. They also cut the hay which is generally fed, with a view to saving, in the troughs. They likewise perform other minor jobs, such as turning the grindstone for the sharpening of the scythes, hoes, axes and other tools.

In the hogpen, the leaves are turned to a great account. It is a long and wide building. Through the middle and its whole length, is a feed passage with troughs on each side, which, upon the plan of a chicken coop, are fixed on the outside of the pen, so that not even a foot can be put in them. On each side of the feed passage, there is a range of partitions to suit the heads of the hogs of different sizes.

It is in aid of Mr. Meade's recommendation of leaves as a manure, that reference has been made to the long continued practice at this farm, and especially as the result of this practice goes to sustain his ideas. This farm consists of 300 acres, of which about 200 acres are in cultivation. And it may not be out of place here, to state, that the amount of the sales of its products, has for a series of years, been gradually increasing, and that the sales of last year, amounted to $9,669.73.

TEST OF THE UTILITY OF LIME. The following simple but unerring method of ascertaining whether lime will be beneficial to land, ought to be understood by every farmer:—To one part of water add one part of muriatic acid, commonly called spirits of salt; then take a handful of the soil from the spot where it is wished to apply lime; dry it well in the sun, put it in a cup, and pour on enough of the diluted acid to cover it—if it effervesces, or foams, it is a certain indication that the soil contains lime enough already, and that the application of more would injure it. If it does not effervesce, but remains *dead* for an hour or two, there is no lime in the soil or not enough, and its application as a manure will be highly beneficial. The only exception to the perfection of this test, is the following:—it does not indicate the precise proportion of lime in the soil—whether there is a deficiency, just enough, or too much; but it does indicate its existence if there be any, and a little practice will enable any one to judge sufficiently near for common practical purposes, by the degree of effervescence. Thus, if the effervescence be merely perceptible, a small addition of lime will be advantageous; and if it be free, so that the surface of the solution be pretty generally covered with small bubbles, there is enough; but if more violent there is too much, and the remedy is to be sought in the application of sand or clay. Again, though all soils, in which none exists, will be benefited by the application of lime, some will be much more so than others. Silicious sand, (ascertained to be such by its scratching glass when rubbed on it,) is most benefited by lime, light loam next, then clay; and dark soils containing an excess of vegetable matter, though benefited in a less degree than either of the preceding, are improved by it. In this article, *slaked lime*, is alluded to—quick lime is advantageously employed in decomposing vegetable and animal fibre in the formation of compost; and sometimes in reducing an excess of vegetable matter in over-rich bottom soils and peatlands—in which it is equivalent to burning. In soils containing any quantity of sulphate of iron, (copperas) quick lime is the only remedy.

Prices Current in Boston, Jan. 28.

Apples, new, bbl. 1.50 a 1.75. *Beans*, white, bushel, .90 a 1.00. *Beef*, mess, bbl. 8.75 a 9.00; cargo No. 1, 7.25 a 7.75; No. 2, 6.50 a 6.75. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 6.50 a 6.75; Genesee, 6.50 a 6.75; Rye, best, —- a ——. *Grain*, Corn, bu. .64 a 67; Rye, .75 a .78; Barley .62 a .69; Oats 40 a 42. *Hogs-Lard*, 1st sort new, lb. 9.00 a 10.00; *Pork*, clear, bbl. 17 a 20; Navy, mess, 13.00 a 14.00; Cargo, No. 1 12.50 a 13.50; *Wool*, Merino, full blood, washed, .60 a 62; do. do unwashed, .— a .—. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .52 *a* .58, do. half blood, .48 *a* .50; do. quarter, 38 *a* 42. Native, washed .38 a .42; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 45 *a* 50.

Prices Current in New York, Jan. 29.

Beeswax, yellow .19 a 21. *Cotton*, New Orleans .11 a .12; Upland, .9 a .10¾; Alabama, .10 a 11¼. *Cotton Bagging*, Hemp, yd. 18 a 20; Flax 12½ a 16; *Flax*, American, 7 a 8.——*Flaxseed*, 7 bush. clean .12.75 a .13.00 *Flour*, N. York, bbl. 6.50 a 6.62; Canal .6.75 a 7.00; Balt. Hwd. st. 6.50 a 6 62½–; Rh'd. city mills 6.75 a 6.87; country, 6.50 a 6.62; Alexand'a, 6.50 a 6.62; Fredericksburg ——- a 6.50; Petersg. 6.50 a 6.62; Rye Flour, 4.00 a 4.12½; Indian Meal, per bbl. 3.87½ a 4.00; per hhd. ——- a 15.00. *Grain*, Wheat, North, 1.35 a 1.40; Vir. 1.30 a 1.35; Rye, North, 75 a 76; Corn, Yel. Nor. .— a 75; Barley, 78 a 79; Oats, South and North, .48 a .50, Peas, white, dry, 7 bu. 5. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.25 cargo 3.75 a —-; Butter, N. York, 12½ a 16; shipping 8 a 11; Lard, 8¾. a .9½; Pork, mess bbl. 13.00 a 14.50, prime 9.75 a 10.50.

Prices Current in Philadelphia, January 29.

Bees-wax, yellow .20 a .21½; *Beans*, bushel .100 a 1.12½ *Beef*, mess 10. a 10.50, prime 8 a 8.50, cargo 7; *Butter*, No. 1, 8 a 8½, No. 2, 6. a 6½; *Cotton*, New Orleans — a .—; Mobile 10½ a 12; Tennessee — a —, Alabama — a —-; *Feathers*, South. .34 a .35, West. .33 a .34; *Flax* .6 a .7. *Flour*, sup. 6.25 a —; fine, 5.87½ a 6.00-Rye 4.00 a — Corn meal, bls. 3.00 a —-, hds. 13.75 a ——; *Flaxseed*, cask ——; bu. 1.45 a 1.50; *Grain*, Wheat 1.20 a 1.25 Rye 60 a 62, Corn l. c. white, 55 a .58, l. c. yellow, 56 a .58, u. c. round, 60 a 62; Oats .33 a .35; Barley, Pa. .80 a .85; do. East. 87 a 90; black-eyed Peas .40 a .50. *Hams*, Jersey 11. a 12½, Virginia 10 a 11, Western .10 a 10½. *Hemp*, 230 a 240; *Lard*, .9 a .10; *Oil*, linseed, 82 a 85. *Pork*, mess, 13.50 a 13.75, prime 12.00 a —; cargo 10.00 a —. *Rice*, 3 25 a —-; *Tobacco*, Kentucky .3½ a .6; Vir. .3 a .5.

FRESH LONDON GARDEN SEEDS.

The subscriber has just received from London a small supply of the very best seeds of the following kinds, growth of 1830, and raised by one of the first horticulturists in England:—Cabbage, Early York, Early George, Wellington, Sugar-loaf, Ox Heart, Bonneuil, late German or Dutch, Red Head, curled green Savoy; Dutch Asparagus, blood and yellow Beet, Nasturtium, Long Red and Yellow Carrot, Solid Celery, Curled Endive, Cauliflower, (early and late,) Brocoli, (white and purple,) White Dutch Cucumber, Long Green do. Windsor Beans, Long Pod do. Prickly Spinach, Early Head Lettuce, (several other kinds,) mellons, the best kinds known in Europe, Onion, white, pale and deep red, Long Parsnip, Curled Parsley, six weeks' Peas, Tomatoes, Early round Turnip, round Dutch yellow Turnip, early long rose coloured Radish, early rose coloured Turnip Radish, Sea Kale, &c.; altogether forming one of the most choice assortments of seeds ever imported. Those who wish to obtain such seeds for spring planting, are advised to send in their orders early. Orders to the amount of five dollars can be sent by wagons to any part of the western country, and by water to any part of the southern states.

GIDEON B. SMITH.
Farmer Office.

Western Tiller, Cincinnati Liberty Hall, Nashville Banner, Richmond Enquirer, Charleston Courier, will please publish the above once a week, three weeks.
Jan. 21.

SEEDS.

THE SUBSCRIBER has in Store, for sale, Orchard Grass, Herds and Lucerne SEEDS, and 50 bushels of CLOVER SEED, of superior quality—and also a general assortment of the Messrs. *Landreth's* GARDEN SEEDS, at wholesale and retail; all of last year's growth.

Likewise,—A general assortment of AGRICULTURAL IMPLEMENTS, as usual. He has for sale, the Messrs. Robbins' celebrated CORN PLANTER, or DRILL, for drilling all Seeds that are capable of being drilled. Price, $10—including three Drills, or Droppers.

J. S. EASTMAN.

N. B. Fruit and Ornamental TREES, BULBOUS ROOTS, FLOWERS, &c. will be furnished from the Messrs. Landreth's Nursery, to order. Orders for TREES should be given early. J. S. E.
Feb. 4.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—Our harbour continues obstructed by ice, and of course there is little business doing. With the Eastern Shore all communication is cut off. Howard street flour from wagons was selling yesterday at $5.87½, but expected to decline; from stores nothing of consequence doing,—$6 a 6.06¼ being about the asking price. City mills flour is held at various rates within the range of our quotations.

TOBACCO.—Seconds, as in quality, 3.50 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14.00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. • Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week comprise 3 hhds. Md. and 6 hhds. Ohio.

FLOUR—best white wheat family, $6.50 *a* 7.00—super. Howard-street 6.00 *a* 6.06¼; city mills, 5.75 a 6.00; Susquehanna, — *a* —; CORN MEAL, bbl. 2.25 GRAIN; red wheat, 1.20 *a* 1.25; white do. —— *a* —— CORN, white, —- *a* ——- yellow — *a* ——-new white — *a* .——yellow — *a* ——RYE, .— *a* .——OATS, .30 *a* 31, BEANS, 90 *a* 1.00-PEAS, 50 *a* 60-CLOVER SEED 5.87½ *a* 6.25 TIMOTHY, 2.00 *a* 2¼.——ORCHARD GRASS, 1.25 *a* 1.50—Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb —BARLEY, 62½ FLAXSEED 1.25 *a* 1.30-COTTON Va. 9½ *a* 10½-Lou. 11½ *a* 12½ —Alah. .9 *a* .11—-Tenn. .9 *a* .10—-N. Car. .9 *a* .10½-—Upland 10 *a* 11—WHISKEY, hhds 1st p 27½ *a* —; in bbls 29½ *a* 30—WOOL, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20–crossed, .20 *a* .22-–three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.–HEMP Russia, ton, $220 *a* --; Country, dew-rotted, 5. *a* .6c - lb. water-rotted, .6 *a* 8c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.00 *a* 4.25—-Mackerel, No. 1, 6.37½, *a* 6.50--No. 2, 5.87½ *a* 6.00-No. 3 3.43¾ *a* 3.50; BACON hams Balt. cured 10c.—-Feathers, 34 *a* —-Plaster Paris, cargo price per ton, 4 25 *a* 4.31¼, ground, 1.37½ *a* —- bbl.-Iron, gray pig for foundries per ton 30.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00 —Prime Beef on the hoof, 5.50 *a* 6 25.

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AGRICULTURE.

CULTURE OF SUGAR.

[The Editor of the American Farmer is indebted to Col. Howard of the House of U. S. Representatives, for a copy of the report of the Secretary of the Treasury on the subject of the Culture of Sugar in the United States. This report is principally made up of answers to the circular sent out by the Secretary, all of which contain much practical information on this important subject, and we shall occasionally transfer such of them to our colums as appear most valuable.]

(Circular.)

Treasury Department,
July 1, 1830.

Sir,—With a view to comply with a resolution of the House of Representatives of the 25th January last, directing the Secretary of the Treasury to prepare a well digested manual, containing the best practical information on the culture of the sugar cane, and the fabrication and refinement of sugar, I have to request the favor of you to communicate, as early as may be convenient, answers to the following inquiries, or such of them as you may be able to answer satisfactorily.

1st. The names and description of the several species or varieties of sugar cane, with a statement of their habits and qualities, as to soil, climate, &c.

2d. The highest latitude and coldest temperature in which the sugar cane produces seed.

3d. The best method of preserving the vegetating principles of cane cuttings on a long voyage.

4th. The latitude and temperature of the coldest climate in which sugar cane has been advantageously cultivated.

5th. The best mode of cultivating the cane.

6th. The best method of making sugar from the cane.

7th. The latest improvements in making sugar from unripe cane—noting the advantages and disadvantages.

8th. The average quantity of sugar which may be made from a given quantity of land, of proper quality, in the various places in which cane is cultivated.

9th. The number of hands required to cultivate a given quantity of land planted with cane, and to perform all the labor necessary in the manufacture of sugar, in the different places where it is made; and the estimated expense of making a given quantity, and putting it up for market, in each or either of these places, including boxes, casks, or hogsheads.

10. The best method of refining sugar.

I am, sir, very respectfully, your obedient servant,
S. D. Ingham,
Secretary of the Treasury.

New Orleans, 4th December, 1830.

Sir,—As President of the Central Committee of the sugar planters of the state of Louisiana, the duty has devolved upon me of forwarding to you a reply to your circular letter of the 1st of July, 1830, respecting information on the subject of the culture of the sugar cane.

The accompanying paper affords the result of the combined experience of many of the most intelligent of our planters, and the facts which it presents may be relied upon as scrupulously correct.

I am, very respectfully, sir, your most obedient servant, Manual Andry, *President.*

To S. D. Ingham, Esq. Sec'ry of the Treasury.

Answer of the Central Committee of the sugar planters of the state of Louisiana, to the circular of the Hon. S. D. Ingham, Secretary of the Treasury, dated 1st July, 1830.

First question.—The names and description of the several species or varieties of sugar cane, with a statement of their habits and qualities, as to soil, climate, &c.

Five kinds of sugar cane are cultivated in Louisiana.

1st. The cane called Creole cane. It is supposed to have come originally from Africa; its stalk rises vertically, the joints are closer than in the other kinds, and it is not so long and thick; its leaves, also, are vertical and remarkably lanceolated; it requires as much labor as the cane of Otaheite; it is, of all the five kinds, the one that is most exhausting to the earth, so that, after a few years, the land on which it has been cultivated is so impoverished that it becomes necessary to substitute cane of another kind. The sugar that it produces has more strength or body than that from the others; it is, consequently, preferable for exportation, and suffers less waste by dripping in crossing the sea.

2d. The cane from Otaheite, called Bourbon cane. The stalk is thicker than that of the other kinds, and longer than that of the Creole cane; the joints are farther apart, the leaves broader, of a lighter color, turning over and hanging towards the ground. The roots branch out less than those of the Creole cane, and it is more liable to be thrown down by the wind. The eye or bud of this cane is very small, and so flat that it is difficult to judge of its quality. It is the most watery of all, and consequently not suitable for new land; it succeeds better in an old soil, provided that it be well ploughed. Cultivated in this manner, the Otaheite cane is the one that produces the most sugar. It suffers less from the cold than the Creole, but it is more tardy in coming up; but, when it has started, its vegetation is more rapid than that of the others. The plants are not so easily preserved, and it must be replanted every year. It is admitted that the sugar it produces has less body than that from the others.

3d. The riband cane, green and red.

4th. The riband cane, green and yellow.

These two species of cane grow rapidly; their stalks are as high as those of the Otaheite cane, and a little less thick; the joints very far apart, as in that cane; the eyes more prominent, and larger; the leaves are more bushy on the top of the cane, which exposes it to be prostrated by the wind; but this accident is little to be dreaded in these canes, because they do not germinate so easily; whilst, in the other species, the buds, on being brought in contact with the earth, vegetate speedily, which changes the sap, and injures the production of the sugar.

The green and red riband cane comes up earlier than any other; it is peculiarly adapted to newly cleared land and low grounds; it is the most vigorous, the easiest to preserve as a plant; the one that bears the most cold, and the culture of which requires the least labor; but, by reason of the thickness of its bark, it requires a stronger pressure than any other to extract the juice; and steam power alone can produce the degree of pressure necessary to avoid a considerable loss of the saccharine matter. The sugar that this cane produces possesses body, is easily made, and gives less molasses than that from the others.

The green and yellow riband cane bears a considerable resemblance to the Otaheite: it is almost as watery, and is not hard; but, as far as we have been able to judge, the plants are more easily preserved; its stalk is larger than that of the green and red riband cane; it is late in coming up, like the Otaheite cane; withstands the cold at least as well, and appears equally suited to lands somewhat exhausted by cultivation.

5th. The violet cane of Brazil. This plant was introduced in Louisiana in or about 1806, but it was soon abandoned, the planters having found that in our climate it is much less productive than any of the others.

The Creole, the Otaheite, and the riband canes are at present the only ones cultivated in Louisiana, and are the best suited to the nature of the soil. They are all more or less affected by the variations of the atmosphere, are very sensible to cold, and are killed, in part, by the frost almost every year. They are also exposed to other injuries, which renders the culture very expensive.

Second question.—The highest latitude and coldest temperature in which the sugar cane produces seed.

In Louisiana it does not produce any seed.

Third question.—The best method of preserving the vegetating principles of cane cuttings on a long voyage.

The information possessed by the committee might prove inexact, as it is not usual to export canes from Louisiana.

Fourth question.—The latitude and temperature of the coldest climate in which sugar cane has been advantageously cultivated.

The committee knows not how far north the cane has been cultivated; but experience has shown, in this country, that it may be cultivated in a latitude much colder than was generally supposed; for fine crops are now made in Louisiana, in places where, a few years ago, the cane froze before being ripe enough to make sugar.

Fifth question.—The best mode of cultivating the cane.

The ground is ploughed as deeply as possible, and harrowed; and after it has been thus broken up, parallel drills or furrows are ploughed at the distance of two feet and a half to four feet from one another; in these the cane is laid lengthwise, and covered about an inch with a hoe. Small canals, to drain off the water, are commonly dug, more or less distant from each other, and these are crossed by smaller drains, so as to form squares like a chequer board. These ditches are necessary to drain off the water from rains, as well as that which filters from the river, which would otherwise remain upon the plantations.

Sixth question.—The best method of making sugar from the cane.

The cutting of the cane is commonly begun about the 25th of October. It is cut longer or shorter according to the degree of ripeness, and carted to the sugar mill, where it is pressed between iron cylinders moved by horses or by steam engines. The juice flows into reservoirs, called vats, of cane liquor; thence it passes, successively, into each boiler of the set. The set is a furnace mounting four or five sugar kettles; the first of which is called the *great kettle,* the second the *clean,* the third the *flambeau,* the fourth the *syrup,* and the fifth the *battery.* At the moment of pouring the juice into the great kettle, a small quantity of lime is thrown in. This alkali, aided by the heat, separates the sediment which rises, and forms over the whole surface of the liquor a coat of scum, which is taken off the moment the ebullition commences. The cane liquor is afterwards decanted into the clean kettle, by means of buckets upon levers. The foreman examines attentively whether or not it is limpid, and whether feculæ rise promptly to the surface of this second kettle. For this purpose a vessel is employed, into which some of the cane liquor has been put. If it is perceived that the liquor remains turbid or thick, a little lime is added in the vessel. If the cane liquor grows clear by the action of the lime, a certain quantity is added in the kettle, taking care not to put more than the exact quantity necessary to obtain a fine clarification. The cane liquor is then passed into the third kettle. After it is boiled, if the clarification is not perfect, some *milk of lime* may be again added. From the third kettle it is passed into the fourth, in which it is again boiled until it is thick enough to be poured into the fifth, where the boiling is completed. To ascertain whether the syrup has attained the necessary degree of consistence, a spoon is plunged to the bottom of the kettle, and withdrawn quickly. If the boiling has reached the proper point, the syrup is so thick that it covers the spoon, and separates from it slowly. To be more certain of the boiling, the thumb is placed upon the edge of the spoon, when a little syrup adheres to it, which is pressed between the thumb and fore finger; these are then separated suddenly. If the thread that is formed between them breaks dry, and rises in a spiral form, like a corkscrew, the boiling is good. The syrup is taken out of the kettle by means of a bucket on a lever, that empties it into a trough, whence it flows into a cooler made of wood.

The layer that each boiling should form is commonly from 3 to 5 inches thick. If froth rises to the surface of the layer, the boiling has been continued too long; but if the froth is white and glutinous, it is a proof that a sufficient quantity of lime has not been employed. In this case, some lime must be added to the next battery, until the foam disappears under the *pallet,* and the trough that has conducted the cooler is dry, and does not stick to the hand when touched. If, instead of foam, there forms on the surface of the syrup a slight crystallization that is friable under the pallet, the boiling is perfect in every respect. Twelve hours after, the sugar is sufficiently crystallized to be put into hogsheads, whence the molasses drips through holes made in them. When the sugar is the produce of cane thoroughly ripe, and has been well made, it may commonly be exported in a month after it is put into the hogsheads.

Seventh question.—The latest improvements in making sugar from unripe cane, noting the advantages and disadvantages.

The ancient method is the only one in use. Some planters are engaged in perfecting it.

Eighth question.—The average quantity of sugar which may be made from a given quantity of land, of proper quality, in the various places in which cane is cultivated.

The average quantity of sugar that may be produced upon an acre of land of proper quality, well cultivated, is from 800 to 1,000 pounds; provided that the cane has not been damaged, either by storms of wind, inundations, or frost.

Ninth question.—The number of hands required to cultivate a given quantity of land planted with cane, and to perform all the labor necessary in the manufacture of sugar in the different places where it is made, and the estimated expense of making a given quantity, and putting it up for market, in each or either of these places, including boxes, casks, or hogsheads.

Louisiana having no agricultural society, and the cultivators being little in the habit of communicating to each other the result of their observations, it is very difficult to answer this question in a satisfactory manner. Two qualities of land are observed on the banks of the Mississippi, in Louisiana, a strong or compact soil, and a light or sandy soil.

The strong soil is easiest of cultivation, and most productive in rainy seasons. The light soils require less labor, and yield more revenue in dry seasons. To these differences others are to he added, resulting from the different exposure of the lands. the greater or less facility of draining them, and also from the greater or less quantity of a weed, known by the name of coco or grass nut. It results from this statement, that the cultivators, who observe but superficially, differ strangely upon the number of hands it is necessary to have to cultivate a given quantity of cane, as well as upon the product that can be obtained. Nevertheless, in answering the question, we will endeavour to approach the truth as near as possible.

Sixty working hands are necessary to cultivate 240 acres of cane, planted in well prepared land, and to do all the work necessary until the sugar is made and delivered. The sugar, up to the moment it is delivered to the merchant, costs the sugar planter about 3½ cents per pound for expenses incurred, without reckoning the interest on his capital.

Tenth question.—The best method of refining sugar.

This question being foreign to the culture of the cane and making of sugar, and the committee not having sufficient information on the art of refining sugar, they cannot venture to answer it.

[Here follow a few remarks in reference to certain tables, the publication of which we deem inexpedient.]

Letter from George Pollok, Esq. dated Philadelphia, November 9, 1830.

Sir,—Having received your circular of the 1st of July, relative to the cane, I take the liberty to make the following replies to those of your queries which have come within the scope of my experiments. The riband cane is the only kind I have cultivated. It is distinguished by reddish purple streaks on the jointed part, and is reputed to be the hardiest description in the United States, but one of the least productive.

Soils which suit Indian corn answer well for cane, but as the juice is more concentrated on dry land, warm rich upland is to be preferred. Moderate seasons are desirable, as too much rain produces an aqueous juice, and too little injures the growth of the plant.

In North Carolina the cane shows no tendency to the formation of seed. It is propagated by cuttings and by roots.

There seems little difficulty in transporting the cutting of the cane: mine were received from Savannah in bulk, merely covered with straw, and were well preserved.

In the spring of 1828 I planted a few dozen of cuttings; in that of 1829 5 acres, and last spring 24 acres. My principal planting has been on lands near the river Trent, in latitude 35° 20″, but the last and present year I have also cultivated the cane on the banks of the Roanoke river, in North Carolina, in latitude 36° 18″. The canes produced in both situations have resembled in size and richness of juice those of Georgia. The ground planted was of the first quality, and generally very highly manured. What has been planted in autumn has rarely succeeded. About the middle of March is our usual time, and has answered well. We plant the cuttings in single rows, at 5 feet distance, the ends lapping a joint or two. When 6 inches high, it resists frost as well as Indian corn, and better than cotton.

The culture resembles that of Indian corn, and, on the same description of land, a hand can tend nearly as much.

Our views have as yet been confined to raising the seed cane, and we have no experience as to the manufacture of sugar.

That the cane may be cultivated on the seaboard of North Carolina with a fair prospect of making molasses, seems more than probable. As to sugar, the case is questionable, as frost renders the season for grinding too short to carry on the business extensively without great risk.

The most northern point in Europe where the cane is cultivated is understood to be on the Mediterranean coast of Spain.

It early occurred to me that near Malaga they probably possessed a description of cane that might be valuable to us, as being acclimated by long culture in that latitude. Under this impression, I took the liberty of stating to the Secretary of the Navy my ideas on the subject, and means were used to accomplish the object, but as yet seem not to have been efficient.

This communication has been delayed in order to have the benefit of this year's experiments.

I am, sir, with sentiments of high respect, your most obedient servant, George Pollok.

Letter from F. Henderson, German Coast, 25th September, 1830.

Sir,—I have the honor to acknowledge the receipt, on the 11th of August, of certain inquiries, which you desire me to answer, with a view to prepare a manual containing the best practical information on the culture of the sugar cane, and the fabrication and refinement of sugar, agreeably to a resolution of the House of Representatives at their last session. Upon a careful, thorough, and fair investigation of the subject, based on my experience alone, the following are my answers to those inquiries:

First. The names and description of the several species or varieties of sugar cane, with a statement of their habits and qualities as to soil, climate, &c.

Answer. There are four varieties of the sugar cane in general use in Louisiana—the purple and green riband, the Otaheite, and the Creole or Brazil cane. The two last mentioned varieties make the best sugar, and upon good ground the most certain crop. The Otaheite grows larger than the Creole cane, but it has to be replanted every year, as it hardly ever grows well from the stubble. They are both alike liable to be injured by early frosts.

In new, rich, and alluvial land, the Creole cane need not at first be replanted more than once in three or four years, and the red riband once in five or six; but this mode of cultivation exhausts the land, and, if persevered in, would soon render it unfit for the cultivation of the cane. The best and most successful planters on the Mississippi seldom suffer the same land to remain planted in cane more than two years; afterwards, they plant it in corn, or let it rest, shading it from the influence of the sun with peas and beans of different sorts. The red riband cane is the largest of the four varieties mentioned; it is generally planted in lands newly cleared, and produces sugar the first season, where other cane would only produce molasses; it is a strong and durable plant, seldom affected by early frosts, and can be cultivated on the margin of water courses as far as the 31st degree of north latitude; but the pulp of this cane being extremely hard, it requires a steam mill to grind it; and the sugar made from it, compared to the sugar obtained from the other varieties mentioned, is always of an inferior quality.

Second. The highest latitude and coldest temperature in which the sugar cane produces seed.

Answer. There is no part of Louisiana in which cane produces seed, except a few ports among the islands, between latitude 28 and 29; but cane planted in rich or in alluvial soil on the margin of water courses, which protect it from the effects of the frost, will ripen sufficiently to make sugar any where between latitudes 28 and 30 or 31, if it be riband cane. For the better understanding of this answer, it is necessary to know that the cane stock does not ripen all at once, but begins to ripen near the ground; so that the lower part of the cane is fit to make sugar several months before the cane has attained its growth. In the islands abovementioned, where the frost is not felt, it is suffered to ripen to the very top; but with us, whatever be its state of maturity, we are compelled, in order to save our crops, to begin cutting it down in the latter part of October, cutting off and throwing away the unripe tops, which are always a considerable proportion of the cane, and sometimes more than half of it. It is perceptible that, as you go north, the cane ripens less in the same length of time; and I believe that the advantage of climate and the chances of saving a crop between the southernmost and northernmost points at which sugar is now cultivated in Louisiana, are at least 50 per cent. in favor of the former. The neighborhood of the sea is very beneficial to the growth of the cane and the quality of the sugar.

Third. The best method of preserving the vegetating principles of cane cuttings on long voyages.

Answer. You may cut down the cane from the middle of September until frost, and put it up three or four acres together, in such a manner that the part of the cane which is ripe be well covered by the tops; this is called putting it up in *mattelasses,* and ought to be done, if possible, in warm weather, or in the morning when the plant is wet with the dews, which are always heavy in these climates at that season of the year. If the cane has been put up in mattelasses, the loose straw may be shaken from them in winter; and, in this state, they can be transported on a voyage of two months, by keeping the frost from them, and giving them air and moisture. They may, also, as soon as they are cut down, be stripped of the straw, and packed in barrels or hogsheads, and, in that state, be transported safely on a voyage of two months. The ground ought to be prepared and ready to plant as soon as they arrive.

Fourth. The latitude and temperature of the coldest climate in which sugar cane has been advantageously cultivated.

Answer. From 29½ to 30° latitude north: some persons have lately begun to cultivate the red ribbon cane on the Red river, as far north as 31°, and the experiment has been thus far successful.

Fifth. The best mode of cultivating the cane.

Answer. If the soil is alluvial, it ought to be well ditched, so that the cane may always be two or three feet above the level of the water in the ditches. According to the quality of the land, the cane ought to be planted from two to four feet apart, allowing the greatest distances in the richest soil; it is laid in drills made with a common plough, lapped only if the land is new, and ——— if it has been long in cultivation. The cane is afterwards covered sufficiently to preserve it from the frost and ice. You may plant at any time from the middle of September to the first of March. The fall planting I look upon as the safest and best, because, in case of a cold winter, the cane is safer in the ground than in mattelasses; and further, because a great deal of the fall planting may be done with the cane tops, which are otherwise thrown away.

Sixth. The best method of making sugar from the cane.

Answer. There is but one method yet in general use in Louisiana to make sugar from the cane. After the juice has been expressed by means of a horse or steam mill, it is boiled in four or five kettles of copper or iron, skimming it as it boils, to rid it of the impurities which it contains as they come to the surface, and throwing into it a sufficient quantity of slack lime to neutralise the acid which is always found with it. The length of time of boiling, and the quantity of lime used, vary every day, according to the quality of the juice, and must be left to the judgment of the sugar-maker; if too much lime is used, an excess of alkali will remain after neutralising the acid, and the sugar will be black; if, on the contrary, the acid is not entirely neutralised, the syrup will not granulate. When the cane juice weighs 70 or upwards, by the common *pise sirop,* it is not difficult to make sugar; but when the cane is unripe, blown down, or spoiled in the field by frost, and subsequent fermentation, it requires a great deal more lime and boiling, and without the greatest care, the syrup will not granulate.

A *batterie* of four or five kettles, well supplied with cane juice, will give from 5 to 10,000 pounds of sugar every 24 hours. The work, to do this, must go on day and night, and without any accident.

In this answer, I have mentioned *sugar-makers.* They are men who follow that occupation as a trade. Every planter is compelled to employ one; and their wages are from one to two dollars per hogshead of one thousand pounds, according to their reputation and skill.

Seventh. The latest improvements in making sugar from unripe cane, noting the advantages and disadvantages.

Answer. There is, thus far, very little improvement in making sugar from unripe or spoiled cane; several planters will attempt it this year by the process of William A. Archbald, for the use of which they have paid him a large bonus. Another man, a sugar-maker from Jamaica, has offered to do it in a different manner; and his method will also be tested this fall. Without pretending to foretell what the result will be, I must be permitted to say that I have no sort of confidence in those projects. Some good may, however, result from the experiments that have been and are intended to be made. The boiling by steam, which is a part of them, would, of itself, be a great saving of fuel, which is now very scarce on many of the plantations bordering on the Mississippi. The common price paid for it by the planters who are obliged to buy it, is from three to three and a half dollars per cord; it takes from two to two and a half cords per hogshead of one thousand pounds, and the engine consumes about one cord more per hogshead. Stone coal is now made use of by many for the steam engine; it is cheaper, and a great deal better than wood, although it has not yet got into general use; it is brought down from Virginia and the western states, and sold here at from 50 to 60 cents per barrel. I use about 3000 barrels a year on two estates, and I find it cheaper to buy it at the above prices than to cut wood in the swamps, and carry it with boats and carts to the sugar-house. I am of opinion that in five years 200,000 barrels of coal will be consumed on the plantations which border on the Mississippi. This is, therefore, one of the many advantages resulting to Virginia and the western states from the American system. The coal with which their mountains abound cannot bear the cost of transportation to any other country. Louisiana will ever be as good a market for it as for corn and provisions, and the quantity wanted will increase every year.

Eighth. The average quantity of sugar which may be made from a given quantity of land, of proper quality, in the various places in which cane is cultivated.

Answer. Let us suppose a plantation containing 750 acres of land (sugar) well ditched, and in a high state of cultivation, between latitude 29 and 30: 500 acres of it would be planted in cane, and the remainder in corn or beans: of the 500 acres of cane, 200 would be plant cane, 200 first year rattoon or stubble cane, and 100 second year rattoon cane; the last hundred acres being generally thin, small, and short jointed, would be put up in mattelasses for plant. The remaining 400 acres would be converted into sugar; and one hogshead of a thousand pounds, per acre, would be considered a good average crop. 400,000 pounds of sugar would then be the average crop of an estate containing seven hundred and fifty acres of sugar land of the best quality, it being 533 pounds to the acre. The corn and beans raised are given to the slaves, and are not sufficient for them one year in ten.

Ninth. The number of hands required to cultivate a given quantity of land planted with cane, and to perform all the labor necessary in the manufacture of sugar, in the different places where it is made; and the estimated expense of making a given quantity, and putting it up for market, in each or either of these places, including boxes, casks, or hogsheads.

Answer. The number of hands required to work the plantation mentioned in the foregoing answer would be one hundred field hands. This, with the old and young, the mechanics, and those employed to take care of the sick, and to mind the cattle and horses, supposes a plantation of one hundred and fifty or sixty slaves. The average crop made by them would be, as above stated, 400,000 pounds of sugar: supposing that it should sell all around on the plantation at 5½ cents per pound, it would yield 22,000 dollars. The proportion of molasses to this quantity of sugar would be at most 20,000 gallons, which, supposing it to sell on the plantation at 18 cents, would give the additional sum of 3,600 dollars, making the gross amount of the crop 25,600 dollars. The annual expense of such a plantation would be about 10,000 dollars, in the following items:

Overseer's wages - -	$1,500 00
Sugar-maker's wages - -	500 00
Engineer's wages - -	400 00
Corn and flour - - -	1,000 00
Stone coal - - - -	600 00
Fresh and salt provisions, and whiskey	1,500 00
Clothing for the slaves, and the hospital	1,400 00
Physician and medicine - -	500 00
Hoops for the hogsheads and casks -	100 00
From 10 to 15 horses, and as many pair of oxen, every year - -	1,500 00
Wear and tear of farming utensils, tools, &c. - - - -	600 00
For lime, oakum, planks, nails, &c. -	400 00
	$10,000 00

This estimate of expense is made on the supposition that the planter pays no freight; that he makes his own wood, all his fences, his levee, his casks and hogsheads, all his wood and iron work, and a large quantity of corn. Deducting the expense, the nett proceeds of the crop would then be 15,600 dollars. An estate of that size, with a due proportion of lowland, the slaves and every thing thereto belonging, situate on the banks of the Mississippi, between latitudes 29 and 30, is worth, and would cost, if well improved, from 225,000 to 250,000 dollars.

The foregoing estimate will show that on a plantation well managed and worked, with the best land, and in the most favorable situation, the actual expense incurred in making sugar in Louisiana is one dollar for every forty pounds, or 2½ cents per pound; and that, at the present prices, such an estate will not yield more than 7 per cent. of its value, whilst the conventional interest of this state is ten per cent.

I wish it understood that I do not give the above average as that of the state of Louisiana generally; for if every 160 slaves gave 400 hogsheads of sugar, the average crop of Louisiana, say 80,000 hogsheads, would be cultivated with 32,000 slaves: the census of 1830 will show more than double that number employed in the cultivation of sugar in the state of Louisiana.

I have owned cotton plantations in that part of Florida which was attached to the state of Louisiana for more than 20 years: I find it even now as profitable as sugar, and I have never thought of changing the cultivation. Could cotton be raised in the southern part of the state as well as on Red river, the cultivation of sugar would, I apprehend, have increased with much less rapidity than it has done.

Very respectfully, your obedient servant,

F. HENDERSON.

CARE OF IMPLEMENTS.

Every careful farmer will lay it down as a rule, frequently to inspect all his implements; and when any part of them is observed in the least damaged, or in danger of giving way, he will take care immediately to have it repaired. An implement, also, that is not longer wanted during the season, should be carefully laid up; but before it is put aside, it ought to be well cleaned, and rendered perfectly dry, oiled or painted, if made of iron, and kept so as to be ready for use, when wanted. No circumstance marks more the character of an attentive husbandman, than this one. Upon every farm, likewise, there ought to be one or more places, properly constructed for holding the larger implements; and some secure place allotted for containing the smaller tools. Where machines are necessarily exposed in the field a great part of the season, they require to be newly painted, at least every second year.—The invention of any useful implement, by which the labors of agriculture can be brought to a higher degree of perfection, and the expense of cultivation at the same time diminished, must prove of the most essential service to the farmer. All such inventions ought to be encouraged.

HORTICULTURE.

(From Prince's Treatise on the Vine.)

ON THE CULTURE OF THE VINE.

Copy of a letter from Edward H. Bonsall, Esq. to the Author.

' *Vineyard, Germantown, Pa. February,* 1830.

"I received your communication, in due course, and feel under obligations for the kindness which prompted it. In accordance with the invitation contained in it, I shall now proceed to give a cursory sketch of my practice and experience, so far as I understand your proposition to extend. I may premise, that I commenced planting my vineyard in the spring of 1825, with from seven to eight thousand cuttings, which I extended over three acres of ground, arranging them with a view to the vines being when grown, at distances of four by seven feet from each other. There was an average of two cuttings in a place. From the time of planting (say first of April,) for a period of six weeks, there was but about one-fourth of an inch of rain, and the sun frequently warm. The vegetating principle was put in action, the sprouts started, and deriving no nutriment from the soil, many of them were soon killed, and dropped off. I raised something beyond one thousand. The early and most important part of the next season was almost equally unfavourable, which combining with the necessity of starting with very few of some of the varieties, I was desirous of cultivating extensively, (and from which I have since been propagating, and gradually extending my stock.) greatly obstructed the completion of my establishment, so that there are yet some vacancies to be filled. I have now about three thousand five hundred in their proper places, and upwards of one thousand more to be renewed. I have such confidence in the business being both practicable and profitable, that I contemplate planting one and a half acres more on a site well suited to the purpose, adjoining my present establishment.

"Some of my vines produced fruit in 1827, pretty freely in 1828, and last year very largely, when my vintage produced eight barrels of wine, beside my making sale of a considerable quantity of fruit in Philadelphia, &c. The ensuing season, I shall probably have more than double the quantity, as there are constantly new vines coming into bearing, and also others approaching their full capacity, which had previously made only a first or a second effort.

"As regards the varieties with which I have had most success, and to which I give the preference, I am unhesitating in ranking as the three foremost, the 'Catawha,' the York, (Pa.) 'Black Madeira,' and the 'Isabella.' These seem to possess all the requisites for our purpose, more particularly as *wine grapes,*—and some persons admire them for the table also. They all produce excellent wood, ripening the shoots almost to the extreme end, even in the most unfavourable seasons, and without any protection, pass through our coldest winters as securely as the oak of the forest. The 'Catawba' and 'Isabella' yield extra-abundant crops of fruit, and the York Black Madeira is also a very good bearer. Their fruit rarely fails to arrive at fine maturity, and is rich in saccharine matter,—the basis of wine. The 'Alexander' I am cultivating pretty largely, but my estimation of it is on the wane. It does not produce as good wood as those just mentioned, and is less certain of ripening its fruit. I have some plants of the North Carolina 'Scuppernong' coming forward; but from conversation with some of my friends, who were familiar with it at the south, I doubt its adaptation to extensive culture. They, say, that as the berries commence ripening, they immediately loosen their connection with the stem, and by slight agitation, fall in great numbers, as is the case with most of our Fox grapes. I have upwards of thirty additional varieties, several of which have not produced fruit, so as to enable me from personal observation, to place an estimate on them; and such as have, I do not think worthy of being brought into competition with the three first mentioned. There are some, the 'Elsenborough,' 'Orwigsburg,' &c. the fruit of which is good, and generally ripens, but they hardly seem fitted for vineyard culture, on account of deficiency in the size of the fruit, amount of produce, &c.

"The wine Dr. Hulings alluded to was part of a cask of one hundred and thirty gallons, made by me three years since, from the 'Alexander' grape, purchased of some of my neighbours, my vines not having at that time come into bearing. It has been pronounced by connoisseurs in Philadelphia, to be very similar in its character to a good Madeira, excepting that it was rather more mild.

"My vineyard is situated between the Schuylkill and Delaware rivers—four miles from the former, and eight from the latter, at an elevation of three hundred feet above their level, having an aspect facing S. S. E., with a sub-stratum of light isinglass soil, and seems well suited to the purpose. From my experience, both on my own premises and at other places, it is my judgment that we should reject almost all the foreign varieties, especially where our object in cultivating them is to make wine.

"I shall now proceed to make some statements on the subject of planting, training, &c. and as my experience, since commencing the business, has suggested some variations from my original plan, I shall rather detail what I *would do,* than what I *have done.* I think the plan laid down by most writers for preparing the ground and planting, is much more expensive than is necessary, and that it is calculated to deter many persons from undertaking the business. To dig the ground from eighteen inches to two and a half feet deep with a spade, is in this country no trifling task, and in comparison with the common process of farming, looks truly formidable. My plan would be, to start two ploughs with strong teams, one immediately behind the other, *in the same furrow,* each of them *set deep,* and after the ploughing is completed, *harrow it thoroughly.* Then, in the direction the rows are intended to be planted, run parallel furrows across the field, at the distance of eight feet from each other. Afterwards cross these at right angles, five feet asunder. In the opening at the intersection of these furrows, plant the cuttings or vines. Of *cuttings,* if they are short-jointed, I think from nine to twelve inches in length is sufficient, observing that the upper eye or bud is firm and good. Then place them in the ground (at the intersections as above) such a depth that the *upper eye* is even with the general surface of the surrounding earth, and draw the earth to them till it is level, pressing it lightly with the foot. If the plough has not made an opening the full depth, the cutting can be forced down with the hand. In case rooted plants are to be set out, if they are not large, the opening at the intersection will be found to be nearly or quite sufficient to receive them, when the earth can be drawn in as before. In this way a large number can be planted in a short time, and at a trifling expense.

"Contrary to the common opinion and practice, I think I have satisfactorily ascertained that *late spring plantings* for *cuttings* is attended with more success than any other time. Last year I planted in nursery beds, from two to three thousand cuttings as late as from the middle of April to the middle of May, with better success than at any previous time. In this case, the slips should be kept in a cool, damp place, a cellar or ice-house, where vegetation may be held in check. To ensure their freshness, sprinkle them occasionally with water. Previous to planting, cut them a proper length, and place them with their lower ends three or four inches in water, in a tub above ground, where they may soak three or four days. At this season, the temperature will be likely to be such as will spur vegetation at once into healthy and vigorous action. In the fall, or early in the spring is preferable for rooted plants. In the autumn of the first year, after the frost has killed the unripe part of the young shoots, they should be pruned down to the mature firm wood, and then with a hoe hilled over with the surrounding soil, which will completely protect them through the winter. If left without protection the first winter, many of them will perish.

"My mode of *training,* as far as I am aware of it, is entirely peculiar to myself, and as regards *fitness* and *economy,* (taking the average of a given number of years) I think is superior to any thing I have met with. I take chestnut posts, the thickness of large fence rails, seven feet in length. These I plant along the rows, at distances of ten feet from each other, and at such a depth as to leave five feet above the surface of the earth. Then taking three nails to each post, and driving them to within half an inch of their hands,—the first, two and a half feet from the ground, a second midway between that and the top, and the third near the top, I attach No. 11 iron wire, (one degree soft is best) firmly to one of the nails in the end post, pass on to the next, and stretching it straight and tight, give it one turn round a nail in the same line as the one to which it was first attached. Having in this manner extended it along the three courses, the whole length of the row, my trellis is formed. I have had a portion of my vineyard fitted up in this way for three years, and experience has confirmed the superior fitness of the plan. It is not its least recommendation, that it possesses in a degree the character of 'labour-saving machinery.' A very important and extensive *labour-making* portion of the operations in the vineyard during the summer, is the attention required by the growing shoots to keep them properly trained up. They grow and extend themselves so rapidly, that where the strips of the trellis are lath, or where poles are used to support the vines, unless very closely watched, they fall down in every direction, in a very unsightly and injurious manner. Here, the wire being small, the tendrils or claspers eagerly and firmly attach themselves to it, and thus *work for themselves,* in probably two-thirds of the instances where the attention of the vigneron would otherwise be required. There is free access afforded to the sun and air, and no hold for the wind to strain the frame, &c. &c.

"I shall not enter into a minute description of my manner of pruning, but may just say, that after the vines have attained a full capacity for production (say five years from the cutting,) my view is to prepare them for bearing an average of fifty clusters to each, leaving several shoots of from three to five joints on a vine, for this purpose. When fresh pruned they will not be more than four feet high, at their greatest age.

"Although I have succeeded in making good wine, and hope still to succeed, as that made last autumn, two hundred and forty gallons, in four separate casks, all promises exceedingly well. I do not consider that I have any settled practice, it being yet in some sort a matter of experiment. I therefore feel that it would be premature for me to treat on this branch of the subject. The important fact, and which is ascertained beyond dispute, is that we *can make good wine in this country,* I believe, equal to the better qualities of foreign. An interest in the business has already been awakened, and is rapidly extending itself through a large portion of our country, and practical instructions on the subject, accompanied by an exhibit of its proceeds, when actively and judiciously prosecuted, seem called for by the exigencies of the present time, and will no doubt, by prompting to the more widely extended culture of the vine, prove a public benefit at the same time that it greatly promotes the personal interests of those who engage in it.

Never write a letter when in a passion.

ON PEACH TREES.

Mr. Smith: *Feb.* 7, 1831.

In reading Loudon's Gardener's Magazine, vol. 2nd. pages 108 and 9, Hortulanus's remarks on the almond for peach stocks, is altogether nonsense.

He speaks of Mr. Anderson's experiments as the best method he could pursue, I mean as relates to sowing the seed where the tree was to remain, to bear fruit. Now any man of common sense, that has ever taken up a tree or planted one, and examined the process of nature in forming her roots to supply nourishment to all the parts, will be fully convinced of the absurdity of such doctrine.

Experience will teach any one, that if you sow your seed, and at the end of twelve months take them up and replant them, by so doing you check and cut a part of the roots, especially the tap root, and this makes it send out fresh fibres; these instead of descending downwards, strike horizontally under the surface of the ground, and seek their nourishment within the influence of the sun: it is these that give the fruit its fine flavour and size.

As for stocks for the peach tree, there has been much said in this country, as well as England, more by mere theoretical writers than by men of experience. I have cultivated the peach this last 13 years in America, and 5 years previous in England, and am led to the conclusion, that there is no stock equal to its own parent to bring the fruit to its proper flavour and size, and with care in cultivation such trees will live from 20 to 30 years.

The soil best suited for longevity in peaches is a light sandy bottom, for instance, the wood is never so strong as in strong loam, and not so apt to be infested with the worm in the roots: in such soil as this, well cultivated every year, they will maintain their vigour for many years.

What I mean by well cultivated is, the ground kept continually removed by cropping it with such crops as will tend to improve its texture; such as potatoes, turnips, peas, beans, &c., and every four or five years a crop of buckwheat. to be ploughed in when in bloom; this will be found to be of great service to both land and trees; as for corn, clover, timothy, orchard grass, and such like, they ought never to be suffered to be cultivated in an orchard.

It is much better to have 100 trees of good kinds, such as you want them for, well cultivated, than 500 or even 1000 neglected to take their chance, as is often the case when ground is cheap.

Great care is required in preparing the ground for an orchard; the best method I know of is this, (and whoever gives it a fair trial will be convinced of its utility.)

Twelve months previous to planting, lay off your ground the proper distance you intend planting your trees, by placing a stake at each end of the field, where you intend to have the first row, then proceed measuring off the proper distance. placing a stake at each end of every row, plough your ground into lands as deep as you can turn it over, commencing in the centre of the stakes, and return on the opposite side, till you have finished the intermediate space between the two stakes, and so proceed with all the rows through the field, which will leave the place where each row of trees is to stand an open furrow, exposed to the meliorating effects of the frost and snow. In the spring crop the ground with potatoes, manure well, and keep all the weeds down through the summer, which will leave the ground in a fine state for planting. The ground will be better if ploughed a second time, the same way as before, as it will break it up deeper and give the roots more room to spread; then cross-plough, harrow and level the ground for planting. This will be found much better than the too common practice of making large holes, sometimes large enough to bury an ox.

Yours, Ignoramus.

(To be continued)

Extracts from the Boquet of Useful and Amusing Trifles.

"The trees of God, without the care or art of man with
sap are fed,
The mountain cedar looks as fair as those in royal
gardens bred."

Green House Plants.—We request it may be taken into consideration by all admirers of plants, not scientific botanists, that if there is such a thing as fine foliage, showy flowers, brilliant colors, and elegant shapes, then three fourths of the plants which require to be grown in green houses, have no claim to these appellations. On the contrary, we affirm that three fourths are plants of meagre foliage, obscure dingy flowers, and uncouth straggling shapes. Let us leave these plants then to the botanist, who views them very properly with interest, as component parts of his system, as links in the great chain of vegetable being. It is a great drawback to the beauty of collections of plants, both exotic and indigenous, that the yellow color is so predominant in the flower. Reds, scarlets, and whites, are the colors that contrast best with the green hue of foliage. It is a remarkable fact, that there are very few greenhouse plants that have blue flowers.

Seeds.—Plants which have a natural tendency to propagate themselves by suckers, bulbs, runners, &c. are generally sparing in their production of seeds. Annual plants can seldom be readily propagated by other means than by seeds, and hence they are almost always fertile in their productions. In all woody plants which propagate themselves abundantly by extension, it will increase the tendency to produce blossoms, to remove all suckers and all shoots and branches near the ground, by which the whole vigor of the plant, is thrown into its upper parts; and the upper parts of almost all plants are those where blossoms are first produced.

To Destroy the Earth Worm.—The common earth worm when it infects plants in pots, may be picked out by turning out the ball; but it may also be destroyed in the pot by watering with any bitter acrid, or acid infusion or solution, as of water of walnut leaves or tobacco, or salt water, lime water, or vinegar. Lime water is the best, both as being the cheapest, and least injurious to the roots of the plants. Salt is equally effectual, but it destroys vegetation: it is excellent for watering garden walks, as it destroys not only vermin but moss and weeds—the two latter often very troublesome in gravel.

The Blight—Is a term in common use, and is applied both to animals and plants when they have received any disease or injury not otherwise to be accounted for. It is supposed to be produced by east winds, extreme heats, thunder and lightning, &c. As far as the disease has been examined, it seems to be a minute fungus growing on the plant, and of course nourished by its destruction. Salt water has been found to destroy it in some cases, but rarely till the injury was already so great that the diseased plant could not recover. In gardens the same process as for the mildew has been tried with success, and this is all that we can recommend. Fortunately it is not very common in green houses.

Consumption in Plants—Is a disease which gradually and sometimes quickly induces the decline and decay of the plant, till at last it dies. The causes which produce it can seldom be correctly ascertained: sometimes it appears to proceed from improper soil, climate or culture; at other times it comes on under the most favorable circumstances, as far as appearance goes. Whatever may be its nature there is no remedy, and all that the gardener can do, if he discovers it before it is too late, is to take off a few cuttings, or adopt the means peculiar to the plant for procuring a successor.

Pressing the Soil.—There is not an operation among all the processes of culture, more essential to growth, than that of pressing the soil to roots, seeds, or cuttings newly inserted in it. Even the common cabbage will not grow if this point be neglected. This, the sagacious Cobbett adverts to, in a strong manner in his book on American Horticulture; justly observing that it is not sufficient in dibbling in cabbages to make them firm at the extreme point of the root. The same thing may be said of all descriptions of cuttings, which, whether of heaths, or of vines, or of gooseberries, must be made quite firm at their extremities. We have seen many crops both of the field and of the garden fail for want of pressure on the seeds.

Propagation of Green House Plants by their Leaves.—The propagation of plants by their leaves, is comparatively a recent discovery. It takes place in nature with a few plants, such as the *Dionœa Seaonion*, &c., and with the hairy ladies' smock (*car damine hirsuta.*) All the improvements which art has hitherto made in this natural mode of propagation, is to take off the leaves when they are fully grown, and instead of dropping them on the earth at random, to lay them on their backs on moist earth, shaded rather by position or by covering, or what is generally preferable, by a little fresh moss strewed over them. All the culture necessary till the young plants form themselves on the edge of the leaves, to keep the moss and earth below of a regular degree of moisture, and exclude bright sunshine. The following greenhouse and hot-house plants may be propagated in this way, covering the more delicate with a bell glass: *Bryophyllum calcinum*, *Gloxinia speciosa*, *Dionœa muscipula*, *Verea crenata*, *Anum*, various species; *Hoya carnosa; Aloe*, most of the species; *Xylophylla*. any species; *Crassula*, many species; *Cotyledon orbiculata*. All the tunicate and squamose bulbs, and probably many others. Other plants throw out roots from the petioles of the leaves, without, as far has hitherto been observed, having the power to generate buds. Such as *Camellia, Aucuba, Laurus, &c.;* others root from the points of their lateral branches, without, as far as has been observed, having the power to form a main shoot, as the *Araucaria* or Brazilian pine.

PLANTS IN WINTER.

Much curious and valuable information may be obtained from Akin's Calendar of Nature.—At this season, he says plants are provided with a sort of winter quarters, which secure them from the effects of cold. Those called *herbaceous*, which die down to the root every autumn, are now safely concealed under ground, preparing their new shoots to burst forth when the earth is softened in spring. *Shrubs* and *trees* which are exposed to the open air, have all their soft and tender parts closely wrapt up in buds, which by their firmness resist all the power of frost; the larger kinds of buds and those which are almost ready to expand, are further guarded by a covering of resin or gum, such as the horse chestnut, the sycamore and the lime. Their external covering, however, and the closeness of their internal texture, are of themselves, by no means adequate to resist the intense cold of a winter's night: a bud detached from its stem, enclosed in glass, and thus protected from all access of external air. if suspended from a tree during a sharp frost, will be entirely penetrated, and its parts deranged by the cold, while the buds on the same tree, will not have sustained the slightest injury; we must therefore attribute to the *living principle* in vegetables, as well as animals, the power of resisting cold to a very considerable degree; in animals, we know, this power is generated from the decomposition of air by means of the lungs, and disengagement of heat; how vegetables acquire this property, remains for future observations to discover. If one of these buds be carefully opened, it is found to consist of young leaves rolled together, within which are even all the blossoms in miniature that are afterwards to adorn the spring.

RURAL ECONOMY.

ON PRESERVING HAMS.

Mount Columbo, Dallas Co. Ala.
Mr. Smith: *Jan.* 23, 1831.

As I consider myself under a moral obligation, in consideration of the many advantages and pleasures I have received from the practical communications of your numerous correspondents, to contribute something in return, whenever I could believe it was in my power to do so, I now take the liberty of stating to you a practice, which I have found, after many experiments upon the subject, useful. Although what I have now to communicate, may not be entirely unknown to some, yet, as I believe it is known to, and practised by, but few, and as I think it a matter of sufficient importance in domestic economy, I will inform you of the only method which I have found effectual, in this warm climate, of preserving hams, &c. perfectly sweet and delicate throughout our summers.

I have taken the American Farmer from its first publication, and have tried every way which has been recommended by its correspondents, to preserve hams, &c. free from bugs, worms and rancidity. With me, not one of them succeeded well. The greatest difficulty in a warm climate, is to preserve them free from rancidity. After being so unsuccessful in experiments, which might, perhaps, succeed well in colder climates, I resolved to pack my hams in charcoal, knowing its antiseptick qualities. This has succeeded to my perfect satisfaction, and I will not hereafter try any further experiments in this matter.

It is of great importance, to have the hams, &c. dried as early as possible, that they may be packed away before the season arrives for the bug or fly to attack them. If this is effected in due time and they are well packed in dry charcoal, made moderately fine, I feel well assured that the lover of good hams, will have no reason to regret having made the experiment. The difficulty of getting the charcoal off, may be made an objection by the neat house-wife, but this is not much greater than to get ashes off when bacon is packed in ashes, as is the practice with many. As the season will soon arrive, when every prudent house-keeper may wish to save his bacon, I have thought proper to state my experience upon the subject, wishing it to pass for no more than its real value. Your obedient servant,

Andrew Pickens.

(From the Windsor, Vt. Chronicle.)

BEES.

Dr. Smith doubts the existence of the queen bee. Now we have never *heard* a bee promulgating laws or appointing subordinate officers, &c. but we have seen what may perhaps be worth telling of.

There was an empty hive at the north end of the bee house, intended for the next swarm. From the hive next south, a swarm had issued, and after flying about for a while, returned. The reason assigned by the owner was, that the queen was unable to fly. A day or two after, the swarm came out again and soon began to return as before. It occurred to us, that possibly her majesty, in attempting to fly, might have fallen to the ground. Stepping in front of the hive, we saw, six or eight feet from its mouth, some twenty bees, flying about near a tuft of grass; and on drawing nearer we saw perched upon a blade of grass, a bee about as long as a drone, but much more slender,—the back of a brighter black, and the legs reddish,—evidently neither a drone nor a working bee. A stick being presented to this singular insect, she crept upon it, and was carried upon it to the mouth of the empty hive before mentioned. A few bees had alighted at its mouth. These immediately followed her into the hive. Some of them soon returned, and ran, evidently as fast as they were able, to the old hive, the stool and front of which were covered with the returning swarm. Having arrived among these, the messengers, for such they appeared to be, would occasionally stop, and shake themselves violently, swinging or rather rocking themselves from right to left and the contrary, as they are sometimes seen to do at and about the time of swarming. This motion was invariably followed by a general scampering of the surrounding bees to the hive. Some of these messengers entered the old hive, where their operations were out of sight, but their entrance was soon followed by the pouring out of multitudes, who made their way with all possible speed to the new hive. In a few moments the odd looking bee, picked up on the grass, was surrounded with a respectable swarm, all was quiet, the usual labors of bees commenced, and in the end, a good summer's work of honey-making was done.—This, and having seen a number of bees of the same appearance, but never more than one in a hive, is all we know by our own eyes, about a *queen* among bees.

[The following remarks, principally taken from a work on the Breeding, Rearing and Fattening Poultry, reviewed in the Southern Agriculturist, give the method of raising Turkeys in France.]

ON THE MANAGEMENT OF TURKEYS.

To make a Turkey Set.—This may be done with still more certainty as follows: the bellies of the females are dipt in cold water, plucking the feathers from underneath it, and flogging them with a sprig of nettle, keeping them warm on a layer of straw; they may be also made drunk with bread soaked in wine and a little brandy, and in this state of intoxication they are placed on those eggs intended for them. On recovering, they seem to have already taken an affection for them; they continue to set on and take care of them, and become as good mothers as those who had shown the greatest disposition to fulfil the duties of that situation.

Whilst thus employed, the setters should be kept quiet and at ease; they are naturally very timid, and should not be disturbed by the frequent entrance of any one, or of those to whom they are unaccustomed. The nests should be placed in some dry, dark, and warm situation, and at some little distance apart, so that they may not rob each other of their eggs.

The advantages of setting many together.—That if any accident happen to the setter, it may be remedied by giving up to another those eggs that are hatching, or ready hatched: besides, the young ones being all of the same strength, they do not starve the weaker ones. It is easier and more saving to rear them in this manner, in flocks, under the direction of a number of *turkey-hens*, than to leave each family to its mother.

Another advantage derived from this practice, is to determine the females to set a second time on the common fowls' eggs, or still better, to recommence laying a second time. In fine, when two broods of young ones are given to one *turkey-hen*, it is a means of procuring repose to the weaker one, and of obtaining sooner a second laying of her.

But when eggs, or chicks are about to be slipped under another setter, it must be done so that she does not perceive it, the evening before is the proper time for this intromission, so that on the morrow the new comers may appear to be of the family. This single caution is also sufficient in substituting other eggs, and taking from the setter those on the point of being hatched.

The *turkey-hen* takes and sets on the fresh eggs given her without the least difficulty; but it is proper not to give her more eggs than she can possibly set over and heat with the body.

In those farms where a great quantity of poultry is wished to be reared, there is great advantage in keeping *turkey-hens* on purpose to set, the more so, as, of all setters, they are the most patient and assiduous. When the brood of chicks is hatched, the young ones may be given to another mother, and a double number of fowls' eggs dexterously slipped under her, which, as they only take one and twenty days to hatch, do not fatigue the setter so much as would two broods of her own eggs, one after the other; besides the way to get early pullets is by giving up the brooding of them to the *turkey-hen*, whose laying is sooner over than that of the common fowl, and to put her in a way of having the second lay.

Management of Turkey Chickens.—According to the assiduity of the setter, it is on the thirty-first or thirty-second day of setting, that *turkey chickens* issue from their prison; but as they are not born altogether, the housewife must put them successsively in a wicker basket, filled with wool or feathers, which she must deposite in a warm place, and sheltered, especially in cold weather. When the brood is entirely come out, if the *turkey-hen* is not immediately to make a second, the little ones are given back to her, care being taken to supply them all with meat and drink.

In the number of chickens which compose the brood, there are some which, slow in hatching, seem to require a little help to get out. The egg then must be taken up and attentively considered. If there appears a mark, or a small hole, through which the bill of the chicken can be seen, the shell must be broken very slightly on the outside, lifted up with the nail, or the point of a pin, so as to make the hole wide enough for the head to pass, taking care not to touch the animal, who would immediately die; he must be drawn gently out of the shell and blown upon to take off the slime that covers it. Eggs, nearly hatched, are also sometimes put in warm water before the birth of the chick. This custom softens the shell, and shows whether the little one is dead or alive.

Those eggs which, on the third or fourth day of hatching, do not present at either of their extremities that clear point, or small hole, through which the chicken may be perceived, will produce none; they must be thrown out of the nest as soon as possible, as also the remains of shells, because they would spread a prejudicial infection, and might hurt the young ones.

But if there are circumstunces in which the animal requires help to get out, it must be administered with much circumspection, and the operation here alluded to, must only be resorted to when the chicken has already made an opening insufficient for the passage of the head; it is not less important to disencumber new born chickens from a pellicle with which the inside of the shell is lined, as also of that yellowish slime which covers the extremity of the upper bill; that matter is something like a grain of hemp seed, and bears that name.

The food for chickens is first, bread crumbled and soaked in wine. It is given to them in the hollow of the hand, afterwards on a pallet; white cheese is mixed with it, or curdled milk with hard eggs, male nettle and parsley, chopped up and made into a paste, more moist than dry, laying it out on small, broad, flat stones, three or four inches by two in width. The little ones are divided into flocks of a small number; they are hindered from tormenting one another; by these means their feet and plumage are prevented from sticking together, such inconvenience being as much against their health as the beauty of their coat.

Although male nettle and parsley are the most wholesome plants for *turkey-chickens*, and are every where to be met with, bramble may be substituted to these when not to be got at. They are mixed with barley-meal, beans, maize, according to local resources. They are made into balls about the size of the fist, which the housewife holds out in her hand to the chickens. They then press and place themselves around her, and peck at the paste till they are full.

The housewife's girl must be careful to give it to them several times a day as often as they digest. Water is given them to drink in shallow vessels.

As the chickens at the moment of their birth, give no signs of seeking their food, and as they are not instructed in the least so to do by the mother, who seems to be more taken up with her own preservation, some impatient housewives have thought it best to feed them; but however clever a housewife's girl may be in this way, it is always hazardous, for the animal's bill is subject to be broken; it is in this instance that it is necessary to admit two or three eggs of the common fowl to those of the *turkey-hen,* ten days after setting, so that the young ones may be hatched at the same time; as the common chickens peck and eat as soon as out of the shell, they become, for *turkey chickens,* an example which they imitate, and which determines them to eat a few hours sooner, which is of some use.

Turkey-hens are not only the most assiduous setters on all sorts of eggs, they are, moreover, preferable to any other female bird in the farm yard, for leading the little ones of different families; they show the same regard for them as their own; no bird of prey or wild animal dare approach; the common chickens led by a *turkey-hen* find food in greater abundance and fatten sooner; they leave their nurse-mother later than if she were a common fowl.

The weak state of the first stage of the chickens lasts, in general, for two months, or till the nipples which the neck and head are supplied with become of a dark or light red. That remarkable time in the natural history of this bird, is really a critical one for them; the dangers which surround them during their feeble youth, diminish, and they lose the name of chicken for that of *young turkey.*

Nature, by coloring their nipples, seems to tell us that these birds are no longer in need of those unceasing cares which have not been spared towards them; and that to favor this eruption, the same cares must still be prolonged, the food increased and rendered more tonic, by adding the yolk of eggs, wine with crumbled bread, wheaten flour, bruised hempseed, &c.

After the shooting of the red, which must be looked upon, as I have already observed, as the time of their being seasoned, the *young turkeys* go into the fields with their mothers, who are not long before they are busied with a fresh laying; they mix without danger or difficulty with the turkeys of the preceding years, if there happen to be any. They roost in the open air, on trees, or on the roosts prepared for them; they may till the month of October, be led into fallow fields, meadows, vineyards, after harvest time, mowing time, and the vintage; in the woods after the falling of the acorn and beach nut; in short, in every place where there is wild fruit, insects and corn to be picked up; but they must, above all, be kept away from vineyards when the grapes are ripe, for hail cannot do more mischief; they return home to the farm in the evening, well stuffed with all the insects they have swallowed and rid the fields of, with the corn which has escaped the hand of the gleaner, and a quantity of subsistence which would be absolutely lost to the proprietor.

Independent of the male nettle, parsley, every plant which is allowed to possess tonic and stomachial virtues, agrees particularly well with turkeys of every age; fennel, wild succory, mil-foil, may enter into the composition of their food. A scorching sun is fatal to these birds, as well as rain, therefore, intelligent turkey-keepers take care to lead their young flocks to pasture, only during the moderately warm hours of the day.

COFFEE.

We know this is a hum-drum subject, and directions for making it, are found in Almanacs, Journals, and Newspapers, from the time of *Wouter Von Twiller* to the present day, and yet a cup of good coffee is rarely to be met with in the country. Now we had rather rummage all the almanacs from Beers down to Giddings, than drink one cup of the syllabub stuff frequently given us at public houses in the country. The French are allowed to drink excellent coffee, and the following we know to be the method practised by many of them for making it. Their kitchens are provided with a coffee pot, or pitcher, into which the coffee is leached: a leach or vessel fitted to the top of it, so as to set into it an inch or two; the bottom of the leach is perforated full of small holes: a canvass bag, made to fit the inside of the leach, having a hoop sewed in the top, to prevent it falling within the vessel: a pipkin, or sauce-pan, of sufficient size to heat water. Having selected and roasted coffee, according to taste, they proceed to grind it moderately fine, and at evening wet with cold water as much as they wish to use in the morning; this is put into the canvass bag, within the leach, and boiling water poured upon the coffee until sufficient quantity is passed through for use; during this operation, the vessels are placed in a situation to be kept hot, but not boil, as that would injure the flavor of the coffee. After the first making, the coffee is taken from the bag, and kept for the next making, when it is put into the sauce-pan, and to it one half of the quantity of water to be used; this is boiled, and the water decanted upon the new coffee in the leach, when the other half of the water is put upon the dregs, and again boiled and decanted as before; after which, the old dregs are thrown away, having been deprived of all their strength. By this process, the fine flavor of the new coffee is not dissipated by boiling, and by the after boiling all the extract is obtained. This is not only an economical method, but we will assure those who feel disposed to try it, the pleasure of drinking coffee in great perfection.

THE FARMER.

Baltimore, Friday, Feb. 11, 1831.

The persons, in this country, engaged in the cultivation of the soil, are estimated to be in proportion to the whole population as 70 is to 100. It hence results that all agricultural improvements, whilst they directly increase the comforts and riches of the individuals employed in this branch of business, have indirectly a tendency to advance the general welfare of the whole community. The promoting, then, of such improvements is an object of universal concern.

As the farm, and the animals and implements thereon, constitute the stock in business of the agriculturist, their gradual improvement is a gradual augmentation of his capital, and consequently of his wealth; but, on the other hand, their gradual deterioration is a gradual diminution of his capital that consequently must, in process of time, inevitably terminate in abject poverty. The necessary result, then, of the one course of proceeding is competency and happiness, and that of the other, insolvency and wretchedness. This being the alternative, the interesting desideratum is, how the one is to be attained and how the other is to be averted. The answer is at hand.—Adopt the course of management pursued by your most thriving neighbours; and, moreover, *read* with a view to ascertain the system recommended by the practice of the most thriving agriculturists in our country.

Although it is an obvious truth, that knowledge is progressive in agriculture, as it is in all the useful arts, yet there are cultivators of the soil, who indolently adhere to a practice merely because it has for a long time prevailed in their neighbourhood. These good folks will, at times, respectfully attend to any facts or suggestions stated to them in conversation, but if the same facts or suggestions should be stated in *print,* they will, from some strange infatuation, utterly disregard them, or contemptuously apply to them the approbrious appellation of *book-learning.* There are, however, we trust, but very few persons affected by such whimsical notions in our enlightened country. We, for our part, have no cause to complain of a want of readers. And confining ourselves, as we do, within our proper sphere of action, we indulge the hope of meriting a continuance of the favours of the community, by collecting with industry and by publishing with fidelity, not the ephemeral projects of visionary theorists, but the duly tested proceedings and the well matured instructions of our most prosperous agriculturists residing in the various sections of our wide-spread diversified territory.

The employment of children in gathering manure, would be well compensated, and it is recommended to the attention of agriculturists. In our travels through the southern states we have often wondered that the swarms of slave children we saw playing about the cabins were not thus employed. Every child might annually save manure enough from the roads, avenues, and fields, where it is not wanted, to pay for its support, and this is no mean object with those who have a large number to maintain. There should be two places of deposite for manure, one for dung of different kinds, and the other for every description of vegetable substance. The dung pen should be concave, with a clay bottom, if possible, to receive and retain the washings, and covered with a shed roof. Into this pen every kind of dung should be thrown fresh; and it should be the constant business of such children and superannuated persons as cannot be better employed, to collect from the roads and other places, all the dung they can find and convey it to the pen. The blood and offals of all animals slaughtered on the farm, should also be carefully saved and buried in the dung in this pen. Few persons have any idea how much nutritive matter they throw away in the blood of a slaughtered pig or lamb. Every description of small dead animals should also be buried in one side of this pen by laying it on the top of the ground and covering it six or eight inches deep with earth, till it is decomposed, when the remains with the covering of earth should be thrown upon the dungheap and mixed with it—the carcases of horses and other large animals should be covered up in the same manner at a distance from the dwelling, and when properly decomposed, the pile of earth covering it may be taken and spread immediately upon the field—on opening the pile the offensive smell may be corrected by a sprinkling of unslaked lime.

The place for depositing vegetable substances may be similar to the dung pen, except in the roof, which will be unnecessary. To this place all weeds found growing by the road-sides, fences, in the yards, garden and fields, and those dug up in the process of cultivation, should be carried in a green state. Small brush and leaves, shavings, old rags, straw, litter, house, yard and barn sweepings—in fact every thing of the vegetable kind, capable of being decomposed in a reasonable time, and which is of no value for other purposes, should be daily collected and conveyed to this pen. Once a week, or as often as any considerable addition shall be made to the pile, a thin covering of earth,—if sandy the better,—should be thrown on, and the pile trod down to make it compact, and to absorb the nutritive salts that may be evaporated.

We are well aware, that this will be considered a *small business,* by many of our large-scale agriculturists—some of those who look for their hundred bales of cotton, or their ten thousand bushels of wheat at each harvesting; but they must consider that their bales of cotton and their bushels of wheat, are made up of the contributions of equally small things—single boles and single heads; and that even these cannot make their contributions without the nourishment afforded by these little particles of manure. Others who have naturally rich soils, will deem such a system unworthy of their attention—rich soils are like rich inheritances, they are not inexhaustible; and we might as well expect the one as the other to remain unimpoverished by a perpetual wasting of its substance. We have seen farmers who pursued such a system, and we never saw one of these who was not "well off in the world." With them, there is neither man nor woman nor child, (infants of course excepted,) old or young, that had not some useful employment; and all who could do nothing better were engaged in gathering manure as above. The farm yards, &c. of such, are always clean and neat—they would as soon think of allowing their bread and meat to be wasted, as any thing which can be made into manure. Visit their barn-yards, and you will never be swamped in the mud and mire; their smoke-house is always well stored, their cribs full, and their purses well lined. One or two other peculiarities invariably mark such managers—the horse of a sheriff's officer is never seen hitched to their gate-posts; their names are never seen in sheriff's sale advertisements.

We feel assured, that if a philosophic view were taken of this subject by farmers, no argument would be necessary to induce them to enter into the system. The soil contains a certain quantity of matter, which is the food of vegetables, and it is absolutely incapable of obtaining more by its own means. If this vegetable food is continually taken from it, and none returned to it, it must, as a matter of course, soon be exhausted, and become barren. It would therefore be as unreasonable to expect good successive crops from a soil to which no manure is ever carried, as it would be to look to a crib which is never replenished, for a continual supply of grain. The soil, like a full corn crib, can furnish no more than its first contents, without being replenished. The conclusion is obvious—as we would gather all the harvest and save the crop carefully—as we would studiously avoid wasting the bread from which we derive our nourishment—so should we gather and carefully save every thing that can be made into manure, the nourishment of the soil.

Prices Current in Boston, Feb. 4.

Apples, new, bbl. 1.75 a 2.00. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 8.75 a 9.00; cargo No. I, 7.25 a 7.75; No. 2, 6.50 a 6.75. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 6.75 a 6.87; Genesee, 6.75 a 7.00; Rye, best, —- a ——. *Grain*, Corn, bu. .72 a 75; Rye, .75 a .78; Barley .62 a .69; Oats 40 a 42. *Hogs-Lard*, 1st sort new, lb. 9.00 a 10.00; *Pork*, clear, bbl, 17 a 20; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Wool*, Merino, full blood, washed, .60 a 62; do. do unwashed, .— a .—. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .52 *a* .58, do. half blood, .48 *a* .50; do. quarter, 40 *a* 42. Native, washed .40 a .42; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 45 *a* 50.

Prices Current in New York, Feb. 5.

Beeswax, yellow .19 a 21. *Cotton*, New Orleans .11 a .12; Upland, .9 a .10¾; Alabama, .10 a 11¼. *Cotton Bagging*, Hemp, yd. 18 a 20; Flax 12½ a 16; *Flax*, American, 7 a 8.——-*Flaxseed*, 7 bush. clean .12.00 a .12.25 *Flour*, N. York, bbl. 6.25 a ——; Canal .6.50 a 6.75; Balt. Hwd. st. 6.50 a 6 62½—; Rh'd. city mills 6.75 a 6.87; country, 6.25 a 6 31; Alexand'a, 6.25 a 6.50; Fredericksburg 6.18 a 6.37; Petersg. 6.25 a ———; Rye Flour, 4.00 a 4.12½; Indian Meal, per bbl. 3.87½ a 4.00; per hhd. ——--- a 15.00. *Grain*, Wheat, North, 1.30 a 1.35; Vir. 1.25 a 1.30; Rye, North, 75 a 76; Corn, Yel. Nor. .— a 75; Barley, 78 a 79; Oats, South and North, .40 a .44; Peas, white, dry, 7 bu. 5. Beans, 7 bu. 7 00 a 8 00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.25; cargo 4.50 a 5.00; Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 8½. a .9½; Pork, mess bbl. 13.00 a 14.25; prime 9.75 a 10.50.

Prices Current in Philadelphia, Feb. 5.

Bees-wax, yellow .20 a .21½; *Beans*, bushel .100 a 1.12½ *Beef*, mess 10. a 10.50, prime 8 a 8.50, cargo 7; *Butter*, No. 1,, 8 a 8½, No. 2, 6. a 6½; *Cotton*, New Orleans 11 a .12; Mobile 10 a 12; Tennessee — a —, Alabama — a —; *Feathers*, South. .34 a .35, West. .33 a .34; *Flax* .6 a .7. *Flour*, sup. 6.00 a —; fine, 5.75 a ——-Rye 4.00 a — Corn meal, bls. 3.00 a —-, hds. 13.75 a -——; *Flaxseed*, cask ——; bu. 1.45 a 1.50; *Grain*, Wheat 1 20 a 1.25 Rye 60 a 62, Corn l. c. white, 55 a .58, l. c. yellow, 56 a .58, u. c. round, 60 a 62; Oats .33 a .35; Barley, Pa. .80 a .85; do. East. 67 a 90; black-eyed Peas .40 a .50. *Hams*, Jersey 11. a 12½, Virginia 10 a 11, Western. 10 a 10½. *Hemp*, 230 a 240; *Lard*, .9 a .10; *Oil*, linseed, 82 a 85. *Pork*, mess, 18.50 a 13.75, prime 12.00 a —; cargo 10.00 a — *Rice*, 3.12½ a 3.25; *Tobacco*, Kentucky .3½ a .6; Vir. .3 a .5.

GARDEN SEEDS, AGRICULTURAL IMPLEMENTS, &c.

The subscribers have received an extensive assortment of FRESH GARDEN SEEDS, such kinds as can be well raised in this country, have been supplied partly from our Horticultural establishment near the city, others by experienced seed raisers in different parts of the United States, and such kinds as are best to import are from the most respectable establishments in London, the whole of which being tested in our hot beds, gives us full confidence in them, both in regard to genuineness of kinds and certainty of vegetating—among them a lot of EARLY YORK CABBAGE SEED may be particularly recommended. All of which are offered wholesale and retail. For particulars as to kinds and prices, refer to catalogues to be had gratis at the store.

RED AND WHITE CLOVER SEED, Orchard Grass, Lucerne, Timothy, Herd's-grass and Tall Meadow Oat grass seeds of the growth of 1830.

In the AGRICULTURAL IMPLEMENTS several improvements have been made since last year; the completion of a set of new patterns, on an improved construction, comprising a variety of sizes, from the small seed plough to heavy three horse, with wrought and cast shares, added to their former kinds, such as McCormick's Improved Plough, Woods or Freeborn's, Self Sharpening Barshares, Cast Iron Cary, Hill Side, Double Mould Board, &c. &c., comprehends an assortment superior to any we have heretofore offered for sale: for particulars see catalogue.

The liberal encouragement given during the last year for our IMPROVED WHEAT FANS has encouraged us to prepare a full supply of them, which will enable to furnish them at instant notice, made of well seasoned materials.

Highly IMPROVED STRAW CUTTERS with spiral knives set on cast iron cylinder heads, of sizes suitable to be used by hand, also adapted to horse and water power from $45 to $75. Also Circular Knife, Self-Feeding Boxes at $20, with several other kinds from $5 to $15.

Also Corn Shellers, patent steel hay and manure Forks, cast steel Axes, Hoes, Spades, Shovels, and garden tools generally, wove wire, &c.

Fruit and Ornamental Trees, Shrubs and Bulbous roots.

SINCLAIR & MOORE,
Grant street, near Pratt st. wharf.

Feb. 11. A C G

OXEN WANTED.

A yoke of first rate young oxen wanted. Those having such to dispose of may hear of a purchaser by applying to the Editor of the Farmer.

Feb. 11. *

SEEDS.

THE SUBSCRIBER has in Store, for sale, Orchard Grass, Herds and Lucerne SEEDS, and 50 bushels of CLOVER SEED, of superior quality—and also a general assortment of the Messrs. *Landreth's* GARDEN SEEDS, at wholesale and retail; all of last year's growth.

Likewise,—A general assortment of AGRICULTURAL IMPLEMENTS, as usual. He has for sale, the Messrs. Robbins' celebrated CORN PLANTER, or DRILL, for drilling all Seeds that are capable of being drilled. Price, $10—including three Drills, or Droppers.

J. S. EASTMAN.

N. B. Fruit and Ornamental TREES, BULBOUS ROOTS, FLOWERS, &c. will be furnished from the Messrs. Landreth's Nursery, to order. Orders for TREES should be given early. J. S. E.

Feb. 4.

RUTA BAGA SEED.

The subscriber has received a large quantity of Ruta Baga Seed, raised by a gentleman of Baltimore with particular care, and with a view to inducing a more general cultivation of this vegetable, to which end (if immediately ordered) it will be sold at half the usual wholesale price when 20 pounds or upwards is taken. Price 25 cents a pound.

Also for sale a few bushels of SUNFLOWER seed.

GIDEON B. SMITH.

BALTIMORE PRICES CURRENT.

BALTIMORE MARKET.—There has been something of a reaction in the flour and grain market, and prices have declined. The last sales of Howard street we have heard of from wagons were at $5.25 a 5.50, and the prices were expected to go lower—we can hear of no sales from stores, and omit the quotation. For city mills 5.37½ was offered, and $5.50 asked—no sales. There is but a small quantity of wheat coming in by wagons, which sells at quotations. Corn is retailing at 70 cents a bushel. Beef has declined a little.

TOBACCO.--Seconds, as in quality, 3.50 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week comprise 2 hhds. Md.

FLOUR—best white wheat family, $6.50 *a* 7.00—super. Howard-street —— *a* ——; city mills, 5.37½ a —-; Susquehanna, — *a* —; CORN MEAL, bbl. 2.25 GRAIN; red wheat, 1.10 *a* ——; white do. 1.15 *a* 1.20 CORN, white, — *a* ——- yellow — *a* ——-new white — *a* .——-yellow — *a* ——-RYE, .— *a* .——OATS, .30 *a* 31, BEANS, 90 *a* 1.00-PEAS, 50 *a* 60-CLOVER SEED 5.62½ *a* 6.00 TIMOTHY, 2.00 *a* 2.50—ORCHARD GRASS, 1.25 *a* 1.50—Herd's, -- *a* 1.00—Lucerne 30 *a* 37½ lb.—BARLEY, 62½ FLAXSEED —— *a* 1.30-COTTON Va. 9½ *a* 10½-Lou. 11½ *a* 12½ —Alab..9 *a* .11—-Tenn..9 *a* .10—-N. Car..9 *a* .10½-— Upland 10 *a* 11---WHISKEY, hhds 1st p 27½ *a* —-; in bbls 29½ *a* 30—WOOL, common, unwashed, lb. 15 *a* .16--— washed, .18 *a* .20-crossed, .20 *a* .22--three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-HEMP Russia, ton, $220 *a* --; Country, dew-rotted, 5. *a* .6c.- lb. water-rotted, .6 *a* 6c.—FISH, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.00 *a* 4.25--- Mackerel, No. 1, 6.37½, *a* 6.50--No. 2, 5.87½ *a* 6.00-No. 3 3.43¾ *a* 3.50; BACON, hams Balt. cured 10c.—Feathers, 34 *a* —-Plaster Paris, cargo price per ton, 4.25 *a* 4.31¼, ground, 1.37½ *a* —-bbl.-Iron, gray pig for foundries per ton 30.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00.—Prime Beef on the hoof, 4.25 *a* 6.00.

EDITED BY GIDEON B. SMITH.

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TERMS.

1. Price five dollars per annum, due at the commencement of each year of subscription.
2. Subscriptions are in all cases charged *by the year*, and never for a shorter term.
3. When once sent to a subscriber, the paper will not be discontinued without a special order from the subscriber; and then not till the end of the year of his subscription that shall be current at the time of receiving such order.
4. The risk of mail in the transportation of both the paper, and of bank notes sent in payment for it, is assumed by the publishers.
5. Advertisements connected with any of the subjects of the American Farmer, inserted *once*, (never more) at one dollar per square.
6. All letters concerning this paper must be directed to the publishers. They must be free of postage, except communications intended for publication, and letters transmitting money.

Printed by John D. Toy, corner of St. Paul and Market streets.

AGRICULTURE.

CULTURE OF SUGAR.

Mr. Smith: *Feb.* 12, 1831.

Sir,—Amongst other statistical documents of importance as connected with one of the great staples of your southern subscribers, I have the pleasure to send you the letter from Mr. Johnston, the learned and accomplished senator from Louisiana, to the Secretary of the Treasury, in reply to his Circular of the 1st July 1830, relative to the *culture of the sugar cane*

The whole letter ought to be recorded in your Agricultural Repository, and if not convenient to yield to it sufficient space in one number, the appendix might be detached and subsequently published.

States are fortunate whose great interests are thus confided in the national councils to gentlemen of enlarged views, so well qualified by education, and by habits of enlightened research, to develope and foster their local resources. S.

Letter of Mr. Johnston, of Louisiana, to the Secretary of the Treasury, in reply to his Circular of the 1st July, 1830, *relative to the Culture of the Sugar Cane.*

Washington, Dec. 31, 1830.

Sir,—You will receive from different individuals in Louisiana, satisfactory answers to the interrogateries in your circular of the 1st of July, 1830. I beg leave to present some general remarks upon the subjects to which they relate.

When Louisiana was acquired by the United States, there was a duty on brown sugar of two and a half cents a pound, levied for revenue. The people of that state, who had already made some experiments in the culture of the cane, saw that the duty afforded them some protection from foreign competition, and secured the benefit of the home market, which was then of considerable extent, and rapidly increasing. This induced them within the region then considered adapted to the cane, to turn their attention to the production of sugar. They embarked their whole fortunes, and for a long time struggled, under very discouraging circumstances, against the effects of the climate, the vicissitudes of seasons, the deficiency of capital, the want of skill, and all the difficulties incident to the commencement of such an enterprise. It was for many years a doubtful experiment and hazardous undertaking, but they persevered.

The cane gradually adapted itself to the climate. Different kinds of cane were introduced, skill was acquired by experience, capital increased, machinery and steam power applied, improvements adopted, and expenses diminished.

At the close of the war, Congress, for the purpose of increasing the revenue, and of protecting the domestic industry, increased the rate of duty on sugar half a cent a pound, as a part of a general system. This had a most decisive effect in bringing this great national interest to its present state, and they have now finally triumphed over every obstacle.

It was more than twenty years before they could produce 40,000 hogsheads; and during the greater part of that time very little profit was made upon the capital employed.

The increase of capital. the introduction of machinery, the diversion of labor from other less profitable pursuits, the acquisition of skill, and, above all, the confidence of the people in the protection of the government, have vastly augmented the means of production. It now promises an ample supply for the consumption of the country, and a steady but moderate profit. They are in a course of experiment, that will in a short period establish this great interest upon a scale adequate to the wants of the people.

Under the faith of the laws, they have embarked their capital in the production of one of the great necessaries of life, and in support of a national system, which they understood it was the object of the government to establish. They have opened a new and extensive field of agricultural industry; directed labor to more profitable employment; maintained the value of slaves; and increased the internal commerce of the country. They have contributed their full share to all the duties paid on other articles. They came into this Union charged with *an immense public debt,* which was greatly increased by the war, in which they suffered in common: they have freely contributed their portion to its payment.

The value of lands and slaves, which constitute a sugar establishment, is predicated upon the value of sugar; and that depends on the rate of duty established by the laws. A reduction of duty which will change the price of sugar, will at the same time reduce the value of the labor employed in making it; and by that means the value of lands and slaves, and the standard of value of every thing else depending on it. A reduction of duty would produce a corresponding reduction, not only on all capital invested in Louisiana in sugar estates, but upon the value of slaves every where in the southern states.

The cultivation of sugar, which has diverted the labor of so large a number of slaves, has sustained their value at the present high rates; and the demand which this article creates for this labor, will continue to maintain the price, while the article maintains its price. Whatever cause, whether overproduction or reduction of duties, diminishes the value of sugar, will equally affect the value of slaves every where in this country.

The present price of slaves in Virginia, founded on the price of sugar, is equal to an average of $200 on all slaves. There are, by estimation, 2,153,370 slaves in the United States, worth $430,674,000. Whatever reduces their value one-half, will sink capital one-half. There are in the state of Virginia, by estimation, 595,214 slaves, worth $119,042,800. Whatever reduces their value one-half, would destroy a capital of $59,521,400 in that state. A like reduction on the value of the whole slave property of the country would sink an amount of $215,337,000 of actual wealth, individual as well as national. But the value of many other things in the south depends also on the value of slaves, and must undergo a corresponding depreciation. It should also be borne in mind, that, although the average value of slaves in Virginia, in this calculation, is taken at $200, the average price of slaves in Louisiana is much higher.

The present price of slaves is fixed by sugar at 5½ cents per pound; of this the expenses are equal to 3½ cents per pound, leaving 2 cents profit; and this 2 cents constitutes the standard of the value of the slaves. Whatever, therefore, diminishes this sum, diminishes the value of slaves by the same rule. Thus a reduction of 1 cent profit would diminish the profit one-half; and, therefore, the rate of interest on the investment one-half; and, therefore, the value of slaves one-half. A reduction, therefore, of 1 cent a pound on sugar would take away 1 cent from the profit, and that is equal to half of the profit, which would reduce the value of the slaves one-half: but if the profit produced was less than the general average of profit, there would be no motive to invest capital in it; and they would cease to buy at any price; and the whole of the slave labor would be directed into other channels. There are as many slaves now engaged in cotton and tobacco as supply the general market of the world. The natural increase of those employed in these objects will supply the increase of consumption. There will be no demand, therefore, for more labor for these purposes. These articles are now very low, and leave only a small profit, and would not afford half the present price of slaves, if, indeed, there could be any demand for them. And if the surplus slaves, with their increase, were thrown upon these two staple articles, which now constitute the chief dependence of the south, and the principal export of the United States, the quantity would be greatly increased, and the price greatly reduced below its present reduced price, and the whole value of the slave property would be sunk. It is, therefore, easy for each of the southern states to calculate the value of the property they have at stake.

The present price of sugar, at 5½ cents, is sustained by a duty of 3 cents a pound. If that duty was removed, foreign sugar would be sold 3 cents less, and ours would fall in the same proportion. That reduction would bring sugar below the actual cost, and, therefore, it could not be made, even if slaves and lands cost nothing. A reduction of two cents would bring the price to the exact amount of 3½ cents a pound, the precise cost of the sugar, independent of the capital, and, therefore, would yield nothing to the cultivator. A reduction of 1 cent would bring sugar to 4½ cents, which would leave only 1 cent profit to pay for the capital—that is, the lands and slaves. That would diminish the present profit one half, and the value of the slaves in the same proportion. This reduction of duty operates entirely upon the *profit;* and a reduction of one-third of the duty operates a reduction of one-half of the profit, and thereby one-half of the value of the capital, and one-half of the slaves. Capital has been invested in Louisiana by the present standard of value. A reduction in that standard would produce a corresponding reduction in the value of all property. A reduction of one third of the duty would sink half the value of property in the state, and ruin all those who have made engagements upon the faith of the laws. It is easy to calculate the effect of this upon slave property in general, and its influence upon the southern states.

I proceed to offer some other considerations:

The sugar made in Louisiana in 1828, for the consumption of 1829, was - 87,965 hogsheads.
The quantity imported for that year was 58,597, re-exported 10,643 - - - 47,954 nett.
Consumption 1829 - 135,919
of 1,000 pounds each, equal to 135,959,000 pounds.

Add increase for two years, at 4 per cent. per annum, 10,873 hogsheads, and the consumption of 1831 will be 146,732, and making allowance for the increased consumption arising from reduction in the price of sugar, coffee, teas, &c. and we may safely estimate the consumption in 1831,
at - - - - 150,000
The crop of sugar for 1830, is estimated at - 100,000
Leaving - - 50,000 hogsheads
to be supplied by importation.

The production of 100,000 hogsheads requires 25,000 effective hands; and adding for children that are unproductive, there may be estimated 35,000 slaves now engaged in the cultivation of sugar. It will require an increase of half that number, to be taken to Louisiana, and established on the sugar estates, to supply the home market for sugar, which together will make 52,500 slaves.

It will require considerable time to purchase the hands, and a large amount of capital to make the establishments necessary to increase the production to 150,000 hogsheads. In 1835, the consumption of the United States will be 175,000 hogsheads, being 75,000 hogsheads more than the present production, and requiring an increase of 26,000 slaves.

In ten years it will require more than 200,000 hogsheads for the consumption, and double the number of the hands, and twice the amount of capital now employed. In twenty-five years the consumption will be 300,000 hogsheads, tripling the present quantity of labor and capital.

This will afford some idea of the amount of labor that is now and will hereafter be engaged in producing sugar for the domestic consumption, and which has been and will be diverted from other agricultural pursuits.

It is quite clear, that, if these slaves had not been drawn to this object, they would have produced a much larger quantity of cotton and tobacco; that the supply of both would have greatly exceeded the demand; and the prices, already depressed, would have fallen much below the present rates. The effect of which would have been to diminish the value of slave labor, and to depreciate the value of that description of property in the south, as well as to reduce the general amount of value of our exports, as we increased the quantity.

The consumption of sugar in 1831 will be 150,000 hogsheads. This may be variously estimated. At New Orleans, where it is made, it sells for 5½ cents,

which makes - - - -	$8,250,000
The consumption of molasses is 18,000,000 of gallons, estimated at 20 cents	3,600,000
	$11,850,000
Of which we produce 100,000 hogsheads - - - -	5,500,000
5,000,000 of gallons molasses -	1,000,000
	$6,500,000

This sum of $11,850,000, must have been paid out of an export of only fifty-five millions, and have consequently diminished to that extent, the means of purchasing other articles necessary to the people.

In ten years the consumption will be, sugar - - - -	$11,500,000
Molasses, say - - - -	4,500,000
	$16,000,000

Which is about one-fourth of the amount of the whole export of the United States, and half the export of cotton, the principal agricultural export.

In 25 years it may be estimated at $22,000,000.

It is very doubtful whether it is possible, from any increase of agricultoral products, to increase the value of the export. It will be seen, then, what proportion this will bear to the whole export, what amount of labor it will divert, and what interchanges it will create.

I refer you to the answer of the Central Committee of Louisiana, in which they present you the result of the operation of 20 plantations for five years, in the parish of Plaquemine, and in the most favorable position.

The capital of 20 plantations	$2,028,000	
Gross revenue - -	274,818	80
Per cent. - - -	13	55
Expenses - - -	171,650	
Per cent. - - -	8	46
For the furnishers of objects consumed—per cent. - - -	8	46
For the planters—per cent. -	5	09
Total, equal to - (gross revenue)	13	55

Cost to the planter, (expenses)
3.63 per lb. profit on capital
1.87 - - per lb. 5.50

It may be, therefore, safely assumed that the actual cost, independent of the slaves and land, and fixtures, is not less than 3½ cents a pound, and the profit not more than 2 cents.

Of the 100,000 hogsheads estimated at - - - -	5,500,000	
And 5,000,000 of gallons of molasses - - -	1,000,000	
	$6,500,000	
Actual expense, (at 3.50 cents)	4,136,363	63
Profit, (2 cents)	2,363,636	37
	$6,500,000	

It is extremely difficult to estimate the profit upon capital: the value of property which constitutes the capital, depends in general upon the interest it produces. There is loss of time and capital in making the establishment. The first four years will probably yield no actual profit, but the labor is employed in making valuable improvements, which add to the value of the estate and become capital. Besides, when, in the most successful operation, the crop depends upon the seasons, and somewhat upon the soil, state of preparation, skill, and other causes. Thus a plantation with 99 slaves yielded—

In 1825	250 hhds.
1826	350
1827	600
1828	550
1829	174
	5)1924
General average	384 4-5

Which is less than 4 hhds. to the hand.

This is an established plantation in successful operation; and the result greatly exceeds the other plantations in the neighborhood. This crop is made by 67 working hands. In some favorable seasons, as 1828, '29, they made eight or nine hhds. to the hand; and in others from 2⅗ to 3. When one of these favorable seasons occurs, and an extraordinary crop is produced, it becomes a matter of great notoriety, is published in the papers, and thus the impression is made, that the profit is immense, that the duty is unnecessarily high, and ought to be repealed or reduced. Under this false view of the subject, it has been brought before Congress, and many members have meditated the reduction of two cents a pound, equal to the whole profit upon the labor. I cannot believe that the southern states, with a correct view of this great concern, will consent to destroy this national object; one essential to our independence and our comfort; to destroy the whole value of slave property; to ruin the people of Louisiana, now in a course of experiment; to strike out from the protection of government the only great object in which the south can feel any interest; an object which will be a full equivalent for all the south pays under the tariff system.

Twenty contiguous plantations yielded in five years, with 1,674 slaves, and 1,086 working hands 21,897 hogsheads.

To wit: In 1825	8,261	
1826	3,654	
1827	5,451	
1828	6,559	
1829	2,972	
General average for 5 years		4,379. 4
Average of hogsheads to the slave		4. 03
hand		2. 61

This calculation is made for the most favorable season, but occasionally a bad season will diminish this product half, and thereby materially change the rate of interest. This is true of the established plantations, but, during the five years, the new plantations will yield nothing. They will be preparing to make this result at the end of that time. They are right, therefore, who estimate these plantations at 6 per cent. for a series of years, and there is a general tendency in labor and capital to seek the level of the average of them in all other pursuits. If the profits in the cultivation of sugar were much above the general rate, there would be an immediate rush of capital and labor in that direction, that would very soon restore the equilibrium.

The difference in the result of the several years is not greater than of the different plantations in the same year. The former is to be ascribed chiefly to the seasons more or less favorable, the latter chiefly to local causes.

It is said that this is a local concern, interesting only to Louisiana. The slaves are taken, as before-mentioned, from cotton and tobacco, and are furnished by the southern states.

The provisions and animals come from the western states.

The clothing from the north.

The engines, machinery, &c. come from the different foundries in the United States—principally from the west.

One-third of the capital comes from the south—and more than three fifths of the whole production goes either in sugar or money to the other states, as their portion of the contribution in making it. The remaining two-fifths, being the profit on the capital, goes back chiefly to Virginia and Maryland, to purchase more slaves.

There are estimated now 35,000 slaves: it will require 26,000 more to supply the consumption of 1835.

There are estimated 725 plantations, which, when brought into operation, will yield an average of 300 hhds. sufficient for the consumption of 1836.

These have required 725 mills for grinding, as many sets of kettles, &c. There are now about 100 steam engines—there will be required in addition upwards of 600 steam engines.

These plantations require also a large amount of horses, mules, and oxen, carts, wagons, ploughs, tools, iron, &c.

The present consumption for the slaves, is 35,000 barrels pork, which will be increased in 1835 to—say 60,000. They purchase now about 50,000 bbls. corn.

Each mill, with steam engine and kettles, &c. will cost $5,000.

There are employed on the sugar plantations (independent of the cotton estates) 22,000 horses—value $1,500,000. These are to be renewed every seven years, or it will require $200,000 a year to supply the market. There were purchased in 1827-8, 2,500 horses—in 1828-9, 2,800—in 1829-30, 3,000 horses.

Of the 100,000 hhds. of sugar, made in Louisiana, 50,000 hhds. are transported up the Mississippi in steamboats, for the supply of the western states, who obtain it in exchange for their productions. Here, then, there is an internal trade of five millions, created in the western states.

The remainder of the sugar is transported coastwise, by our vessels, to the north, to restore the balance of trade with that quarter, as well as with foreign nations.

Thus every interest of agriculture, manufactures, commerce, and navigation, connects itself intimately with this object.

The sugar is indeed made in Louisiana, but a portion of the money on which the establishments are founded, the whole of the labor by which it is produced, the chief supply of food, and the entire amount of clothing, and the transportation of the article, are furnished from the different states.

It is as impossible to say who produces the sugar, as to ascertain which of the slaves produces the crop: all the branches of industry work together, to the common end, as all the parts of each branch co-operate to its particular object.

In the separation of employments, that takes place in the progress of society, there arises a complicated system of connection and dependence, in which all the parts unite, to produce a result, in which the whole power combined depends on the mutually connected members. It is clear that *all* therefore as to every practical effect—that labor wheresoever and in whatever form it contributes to the production of sugar, is a necessary part of the combined operation, and equally serves to increase the amount and value of the article, and to add to the general mass of wealth.

When these estates are perfectly established and in full operation, so as to supply the consumption of the country, there will be some reduction in the price of sugar, but then there will be also, a general corresponding decrease in the price of other articles and especially of slaves. One fourth of the present duties, now levied for revenue on articles not made in the country, will be released. Then the value of labor, which must after all be the general standard, will be as great when employed in the culture of sugar, as in any other pursuit.

When the estates are paid for, and the general diminution of value in other things takes place, with the improvements in machinery and other causes, sugar will be profitably made at 4 cents, and that is about the price at which we purchase it now in the Islands: at that price, we can, after supplying this country, enter into the general market of the Baltic, Mediterranean and Black Seas.

Besides this, there is reason to hope that by aid of the steam process, refined sugar of superior quality may be made at a price much lower than by the present operation, and less than it can be made for in any other place, and under the benefit of the drawback, will supply the general market open to this trade; with which also a considerable trade may be carried on in rum. From these views it will be seen that the culture of sugar is destined to be carried to great extent, and to become an object of great national importance.

The protecting duty on sugar, besides opening a new field of industry, diverting a large portion of labor from other objects, maintaining the value of all the slave property in the country, and supplying the people with an article of general use and prime necessity, has actually diminished the price one-half in twelve years.

In paper A, it will be seen that the prices in 1818 ranged from $14 to 15, and that in 1829 they had fallen to $7 50.

In paper marked B, it will be seen, that the brown of Havana has fallen three cents in six years, from 10 to 7 cents, while the sugar of Louisiana has varied from 8½ to 6½. The price of sugar has in that time depreciated more than the duty, and will produce still greater effect. The general average of Havana brown, for six years is 9¾, which now sells at from 7 to 8. The general average of Louisiana for the same period is 8½; the present price ranges from 6½ to 7½. The sugar of Louisiana now sells in New Orleans at 5½; freight &c. will bring it to 6½ in the Atlantic ports.

The brown clayed of Havana, costs from 4 to 4½, duty 3 and freight 1, makes that worth 8 to 8½, giving a difference of two cents to the Louisiana sugar.

The Muscovado, which is inferior, costs from 3 to 3½, duty 3, and freight 1, making 7 to 7½, still more than the price of Louisiana. The effect of this difference is to bring down the price of sugar.

It will appear by paper C, that the quantity of sugar imported for ten years has not materially varied. With all the effort to extend the cultivation it has only kept pace with consumption; in 1821 and 1831, our importations will stand at about 50,000 hhds.

Paper D exhibits the quantity, value, and average cost of molasses imported from 1820 to 1829.

The average importation for 1826–7 and 8 was 13,500,000 gallons a year, which cost an average of $2,828,727 a year, besides what was produced in Louisiana.

In 1829, in consequence of the double duty, the importation fell to 10 millions of gallons, and the price from 20 to 14 cents. The duty is now restored to 5 cents, when the usual importations will take place.

Paper E contains several interesting statements with regard to the culture of sugar, &c.

There are five kinds of cane in Louisiana, 1. Creole cane, 2. Otaheite, called Bourbon cane, 3. Riband cane—green and red, 4. do. green and yellow, 5. Violet cane of Brazil; this has been abandoned.

Louisiana lies in the upper limits of the sugar region. The cane is therefore liable to suffer from the variations of seasons; being a tropical plant, it is extremely delicate and easily affected by cold. It has, however, adapted itself to the climate, and has been cultivated successfully during the present year at 31° 15 north, and the cane at 32° appears equally well adapted to sugar, but no experiment has been made in Louisiana higher then 31° 15 north. But at that point the cane is equal to any produced in any latitude in the State.

Without entering into any exact calculation, I can with confidence assure you, that Louisiana alone can produce enough for the consumption of the country for twenty-five or thirty years, and including Mississippi, Alabama, Florida, and Georgia south of the 32° degree, will supply it for twice that period.

It thus appears, that the people of Louisiana, under a confidence in the permanency of the policy of the government, have embarked their fortunes in the production of an article of extensive use; that they are now in the course of successful experiment, which promises, in a few years, to supply the consumption of the country; that they have opened a new field of agricultural industry and enterprise, requiring a vast amount of labor and capital: that they have actually reduced the price of the article one half, and have saved the country an expense of six or seven millions a year, and will reduce the price still lower, when the experiment is complete.

		Hhds.
It appears that the consumption of the United States in 1831 will be -		150,000
[Production of 1830 will be, by estimation, 100,000 hhds., leaving to be supplied from the islands, 50,000.]		
Consumption for 1835 will be -		175,000
[Which will probably be supplied in that time from the sugar region.]		
Slaves now employed -	35,000	
Additional number required	26,000	
	———61,000	
Consumption in U. States in 25 years		300,000
Requiring upwards of 100,000 slaves.		

It appears, also, that sugar has fallen from 14 and 15 cents in twelve years to 7½, and from 10½ to 7½ in three years; a diminution equal to the duty.

Sugar is now in N. Orleans, first quality	5½ cts.
Cost of production - -	3½
Profit on capital - - -	2

Which is a general profit of from 5 to 6 per cent.

The production to the hand, say 4 hogsheads, and to the slaves employed, about 2.61.

That the price of slaves is doubled by the duty on sugar.

That the removal of the duty would destroy the culture, ruin the people of Louisiana, sink the value of slaves, and at the same time destroy, by over-production, the value of cotton and tobacco.

That there is land enough in the United States to produce a supply for this country for fifty years.

It appears, also, that the whole value of the consumption of sugar and molasses in 25 years will be about 22 millions of dollars.

That a reduction, even of one cent of duty, would take away half the profit, and all the inducement to engage in it.

That an abandonment of this interest would not only sacrifice many millions of property and the future hopes of the state of Louisiana, but would actually have the effect to increase the price of sugar for all future time.

From all these considerations, it is hoped the protection of this great interest will be the permanent policy of the government. As soon as the market is supplied, and competition takes effect, the price will gradually fall to the price in the islands, which is now at an average of 4 cents.

The continual agitation of this question is itself an injury of great magnitude; besides the continual anxiety and alarm among the people, it renders property of uncertain value, prevents the investment of capital, retards the progress of improvement, and represses the spirit of enterprise.

The duty on sugar will be important until the completion of the payment of the public debt, which will be three years. Before that time the price will be so regulated as to leave no motive to stir that question again.

These are the views I have thought it my duty to submit, in answer to your circular letter from the treasury, of 1st July last.

I have the honor to be, your obedient servant,

J. S. Johnston.

APPENDIX.—(A.)

Average value of Sugar during the several months stated below, from the year 1818 *to* 1830, *in Philadelphia.*

MONTHS.	1818.	1819.	1820.	1821.	1822.	1823.	1824.	1825.	1826.	1827.	1828.	1829.	1830.
	pr. cwt.	pr. cwt.	pr. cwt.	pr. cwt.	pr. cwt.	pr. cwt.	p. cwt	pr cwt.	p. cwt	p. cwt.	p. cwt.	p. cwt.	p. cwt.
January,	-	-	-	-	-	-	-	8 00	-	-	8 75		
February,	-	-	11 00	-	-	11 00	-	7 00	8 10	-	8 25		
March,	$12 50	-	7 50	9 50	11 50	9 25	-	-	8 25				
April,	-	13 00	10 00	10 37	11 50	9 25	-	9 00	-	-	-	7 50	
May,	-	12 50	10 75	10 25	-	10 00	-	7 75	-	8 75			
June,	-	-	10 00										
July,	-	-	10 50	10 62	-	8 75	-	-	-	-	7 00		
August,	-	-	11 00	-	-	-	-	10 00	-	-	8 62		
September,	$15 00	-	10 75	10 62	-	-	-	9 75	-	-	-	7 50	
October,	-	-	-	-	-	10 00	-	-	-	-	-	-	7 62
November,	$14 50												
December,	-	-	-	-	-	9 80	8 20	-	-	-	7 25		

(B.) SALES OF SUGAR, BOSTON MARKET. SIX YEARS.

MONTHS.	1824. per 112lbs.				1825, per 100 lbs.			
	Brown Havana.	St. Croix.	Porto Rico.	New Orleans.	Brown Havana.	St. Croix.	Porto Rico.	New Orleans.
January,	10 a 10½	9½ a 11	8 a 9	- -	9 a 9½	9½ a 10½	7¾ a 10¼	
February,	9¾ 10¾	9½ 11	8 9	- -	8½ 9½	8½ 9½	7 9	7 9
March,	9¾ 10¼	9 11	8 9	- -	8½ 9½	8½ 9	7 9	7 9
April,	9½ 10	9 11	8 9	8½ 9½	10 11	11 12	10 11½	9 10¼
May,	9½ 10	8¾ 10½	7¾ 9	7½ 9¼	10 11	10 11	9½ 11	9 10¼
June,	9 9¾	8¾ 10½	7¾ 10	7½ 9¼	10 10¾	10 11	9½ 11	9 10¼
July,	9 9½	9 10½	7¾ 10	7½ 9¼	11 11½	10½ 11½	9¾ 11½	9½ 10½
August,	9 10	9 10½	7¾ 10	7½ 9¼	11 12	10 12	9¾ 11¾	9½ 10½
September,	9 9¾	9 10½	7¾ 10¼	7½ 9¼	11 12	10 12½	9¾ 11¾	9½ 10¾
October,	9¼ 9¾	9½ 10½	7¾ 10¼	7¾ 10	11 11¾	10 12	9½ 11	9 10¼
November,	9¼ 9¾	9½ 10½	7¾ 10¼	7¾ 10	11 11¾	10 11¼	9½ 11	9 10¼
December,	9 9¾	9½ 10½	7¾ 10¼	7¾ 10	10½ 11¼	10 11¼	9½ 11	9 10¼
Average	8 5-8 per 100 lbs.	8¾ p. 100lbs	7¾ p. 100lbs.	7 5-8 p. 100lbs.	10 5-8 per 100 lbs.	10½ per 100 lbs.	9 7-8 per 100lbs.	9½ per 100lbs.

MONTHS.	1826, per 100 lbs.				1827, per 100 lbs.			
	Brown Havanna.	St. Croix.	Porto Rico.	New Orleans.	Brown Havana.	St. Croix.	Port Rico.	New Orleans.
January,	10 a 10¾	9¾ a 10¾	9 a 10½	8½ a 10	9½ a 10	9 a 10	8 a 9	
February,	10 10½	9 10½	8½ 10	8 8½	9½ 10¼	8¾ 9¼	8 9	7¾ a 9
March,	9¾ 10½	9 10¼	8½ 9¾	8 8½	10 10¾	8¾ 9¼	8 9	7¾ 9
April,	9¾ 10	9 9¾	8½ 9¾	8 8½	10 10¾	9 10½	8 8½	7¾ 9
May,	9¾ 10½	9 9¾	8½ 9	8 8½	10 10¾	9 10½	8¼ 8¾	7¾ 9
June,	9 9¾	8 9¼	7½ 8½	8½ 9	10 10½	9 10½	8¼ 8¾	7¾ 9
July.	9 9¾	8 9	7 8½	8½ 9	10¼ 10¾	9 10½	8¼ 8¾	7¾ 9
August,	9 10	8½ 9¼	7 8½	8½ 9	10½ 10¾	9 10½	8¾	7¾ 9
September,	9 10	8½ 9¼	7 8½	8½ 9	10¾ 11½	9 10½	8½ 9½	7¾ 9½
October,	9 9¾	8 9½	7 8½	8½ 9	10¾ 11½	9 10½	9 10	8 10
November,	9¼ 10½	9½ 10½	8 9½	- -	11 11¾	9 10½	9 10	8 10
December,	9½ 10	9½ 10½	8 9½	- -	10¾ 11¼	9 10½	9 10	8 10
Average	9 7-8 per 100 lbs.	9 3-4 p.100 lbs.	8½ p.100 lbs.	8 5 8 p.100 lbs.	10½ per 100 lbs.	9 5-8 per 100 lbs.	8 3-4 per 100 lbs.	8 5-8 p.100 lbs.

	1828, per 100 lbs.				1829, per 100 lbs.			
January,	10 a 11¾	- -	9 a 10	8 a 9¾	9½ a 9¾	9¼ a 9¾	- -	7½ a 9
February,	10 11	- -	9 10	7½ 8½	9¼ 10	9¼ 9½	7½ a 8½	6½ 8
March,	10 10¾	9 9¼	9 10	7½ 8½	9¼ 10¼	9¼ 9½	7½ 8½	7 9
April,	10 10¾	9 9½	9 10	7½ 9	9¼ 10	8¾ 9½	7½ 8½	7 9
May,	10½ 10¾	9 10	8 9	7½ 9	9¼ 10	8¾ 10	7½ 8½	7 9
June,	10¼ 11	9¼ 10	- -	7 8¾	9¼ 10	8¾ 10½	7½ 8½	7 9
July,	10¼ 10	9¼ 10	- -	7 8¾	9¼ 10	8¾ 10½	7½ 8½	7¼ 9
August,	11 11½	9½ 10	- -	8 9¼	9 10	8¾ 9½	7 8	7¼ 9
September,	11 11½	9½ 10	- -	8½ 9¼	9 10	8¾ 9½	7 8	7¼ 9
October,	10½ 11¼	9½ 10½	- -	8½ 9	9 9¾	8½ 9½	7 8	7¼ 9
November,	10¼ 10¾	9½ 10½	- -	8½ 9¼	8¼ 9½	8½ 9	7 8	7¼ 8
December,	10 10¼	9½ 10	- -	7½ 9¼	8¾ 10	8½ 9¼	7 8	7½ 8¼
Average	10 5-8 per 100 lbs.	9 5-8 p.100 lbs.	9 3-8 p.100 lbs.	8 3-8 p.100 lbs.	9½ per 100 lbs.	9 1-8 per 100 lbs.	7 3-4 per 100 lbs.	7 7-8 p.100 lbs.

	1830, per 100 lbs.			
January,	8½ a 10	8 a 9½	7 a 8	7½ a 8¼
February,	8 9	7½ 9¼	7 7¾	7½ 8¼
March,	8½ 9¼	8¾ 9¾	8¼ 8½	7 8
April,	8½ 9¼	8½ 9¼	8¼ 8¼	7 8¼
May,	8 9	8½ 9½	7½ 8	7¼ 8½
June,	8 9	8½ 9½	7½ 8	7½ 8½
July,	8 8¼	8½ 9½	7 8	6½ 8½
August,	7½ 8¼	8½ 9½	7 8½	6¼ 8
September,	8 9	8½ 9½	7½ 8½	6½ 8
October,	8½ 9	8¼ 9½	7½ 8½	7 8
November,	8½ 9	8¼ 9½	7½ 8¼	7 8
December,	6¾ 8¼	7¾ 8½	7¼ 8¼	6½ 7½
Average	8 3 8 per 100 lbs.	8 3-4 p.100 lbs.	7 1 8 p.100 lbs.	7½ p.100 lbs

Average price of Brown Sugar in the Boston Market for seven years—1824 *a* 1830, inclusive.

Brown Havana,		$9¾ per 100 lbs.
St. Croix,	-	9½
Porto Rico	-	8½
New Orleans		8¼

C.

BROWN SUGAR IMPORTED.

			Quantity.
	1821	-	53,145,651
	1822	-	77,470,313
	1823	-	53,778,721
9 months to 30th June,	1824	-	57,193,256
3 months to 20th Sept.	1824	-	22.933,173
	1825	-	64,180,041
	1826	-	76,019,015
	1827	-	70,108,937
	1828	-	51,686,955
	1829	-	58 597,571

D.

Statement of the quantity and value of Molasses imported annually, from the 1st October, 1820, to the 30th September, 1829, together with the average cost per gallon, in each year.

Years ending			Quantity.	Value.	Average cost pr. gal.	
			Gallons.	*Dollars.*	*Cts.*	*Mills.*
30th	Sept.	1821	9,036,982	1,719,227	13	9
"	"	1822	11,990,569	2,398,355	20	
"	"	1823	13,019,328	2,634,222	20	2
"	"	1824	13,117.724	2,413.643	18	3
"	"	1825	12.535 062	2,517 715	20	3
"	"	1826	13,813.045	2,838,728	20	5
"	"	1827	13,376,502	2,818,982	21	
"	"	1828	13,393.651	2,788,471	20	8
"	"	1829	10.150.224	1.484.104	14	6

E.

(From the Boston Courier.)

DUTIES ON SUGAR.

The following article is furnished by a merchant of this city, who has long been engaged in the sugar trade, and whose facts may be relied on as accurate:

To the Editor of the Boston Courier:

The article in the New York Evening Post, of the 18th instant, under the head of "Duties on Sugar," appears to be erroneous, so far as it respects the profits derived from the manufacture of that article in Louisiana, and indeed so it is in every other particular. If it were true that the benefits were even half as great as they are stated to be, it would be a good reason why the present duty should be reduced. Before the war of 1812, the duty on brown sugar was 2½ cents; when war was declared, the duty on importations was doubled; this augmentation was for the purpose of increasing the revenue, during the war, and it was reduced to three cents on the return of peace. Under this state of things, an immense pecuniary interest has grown up in Louisiana. The capital now employed in the culture of sugar in that state, is estimated at 45 millions of dollars, which certainly does not yield an interest of more than 6 per cent. as is proved by the following documents: therefore take off the duty, and the cultivation of this necessary article must cease altogether, within the United States, and ruin those who have invested their property in it; the cultivation of sugar is by no means a profitable business, and the climate and land of Louisiana are not fitted for growing wheat, barley, and the vine or the olive—sugar, therefore, is the only article they can cultivate.

Estimate of the gross and net income of one of the best estates in Louisiana from 1818 to 1828, inclusive, in which a capital of $220,000 was invested, taken from actual accounts:

Gross proceeds of crops for eleven years,		$210,861 48
Expenses for eleven years,	-	89,669 46
Net proceeds,	- - -	121,192 02
Gives an average income of	-	11,017 00

per annum, being a fraction over 5 per cent.

By an authentic estimate made by an Agricultural Society in Louisiana, the net and gross income of one of the best estates in that state from 1824 to 1828, in which a capital of 150,000 dollars was invested, were as follows:

Gross proceeds of crops of five years,		$54,247
Expenses for five years,	-	21,170
Net proceeds,	- - -	33,077
Which gives an average income of		6,616

per annum, being a fraction less than 5 per cent. per annum on the capital invested.

The capital invested in a plantation capable of producing by the best management 400,000 pounds of sugar, and 10,000 gallons of molasses, worth on the plantation 23,000 dollars, must consist as follows:

1500 acres of land, at $50 per acre		75,000
90 hands, at 600 dollars each	-	54,000
40 pair of working oxen, at 50 dolls.		2,000
40 horses, at 100 dollars,	-	4,000
Horizontal sugar mill,	- -	4,000
2 sets of boilers, at 1500 dolls. each,		3,000
Buildings of all descriptions,	-	25,000
12 carts,	- - -	1,200
80 ploughs,	- - -	300
All other utensils, such as timber, wheels, hoes, spades, axes, scythes, &c.	-	1,500
		170,000

The annual expenses on the above plantation, cost 10,700 dollars in the following items:—

Provisions of all kinds,	- -	3,500
Clothing of all sorts,	- -	1,500
Medical attendance and medicine,	-	500
Annual losses in negroes,	-	1,600
Taxes,	- - - -	500
Horses and oxen,	- -	1,200

Repairs of buildings, - -	700
Ploughs, carts, &c. - -	300
Overseer, - - - -	1,000
	$10,700

Two crops of cane are generally made in succession on the same land, one of plant cane, the other of the second year's growth; it then lies fallow two years or is planted in corn and beans.

Gross proceeds, - - -	$23,000
Expenses, - -	10,700
Net proceeds, - - -	12,300

Being about 7 per cent. on the capital invested.

The following statement will demonstrate, that the whole capital invested it sugar estates in Louisiana, taken together, does not pay the capitalist 6 per cent. interest for his money.

It has been ascertained by a Committee of an Agricultural Society in Louisiana that there were about 700 plantations in that state in 1829, valued at 45,000,000 of dollars. The products for 1828 and 1829 from these estates are accurately ascertained, throwing off fractional parts, to be:

1828, 88,000,000lbs. sugar, at 5½ cents is - -	4,840,000
2,200,000 gals. molasses, at 18 do. - -	396,000
1829, 47,000,000lbs. sugar, at 5½ do.	2,585,000
1,400,000gals. molasses, 18 do.	252,000
	$8,073,000

It is well known by all practical men engaged in the business, that the annual expenses on a sugar plantation in Louisiana amount from 5 to 7 per cent. on the capital invested—therefore taking the medium of 6 per cent. the whole amount of annual expenses, for provisions, clothing, repairs, &c. amount to 2,750,000 dollars on all the sugar plantations in Louisiana.

Gross proceeds for the last two years,	8,073,000
Expense for the two years, -	5,500,000
Net proceeds, - -	2,573.000
Net profit, - - -	2,573,000

—Being a fraction less than 6 per cent. on the capital invested—this too in a country where money is worth more than 6 per cent. per annum.

F.

Plantations	Slaves.		Hhds. sug. made in y'rs					Total 5 years.
	Field laborers.	Tot.	1825	1826	1827	1828	1829	Hhds.
1 2	125	191	43[illegible]	360	4[illegible]0	610	415	2,254
3	32	67	160	200	333	385	120	1,198
4	22	38	60	72	80	124	38	374
5	70	105	147	20[illegible]	383	390	130	1,258
6	47	75	15[illegible]	133	204	415	150	1,054
7	22	27	53	66	76	124	71	390
8	40	70	105	140	180	282	160	857
9	33	60	80	90	147	147	76	540
10	100	159	280	27[illegible]	463	660	16[illegible]	1.843
11	60	103	198	170	290	22	226	1,110
12	65	100	99	130	190	378	221	1.018
13	77	9[illegible]	300	435	550	525	240	2,050
14	35	67	170	118	150	220	80	738
15	33	57	58	70	125	230	55	538
16	75	90	250	289	430	305	208	1,473
17	45	64	120	160	180	310	183	953
18	88	138	1[illegible]0	240	350	374	175	1,329
19	50	68	150	160	290	304	82	936
20	67	99	250	350	600	550	174	1,924
	1086	1674	3261	3654	5451	6559	2972	21,897

Average per annum for five years	4,379 2-5

1674 slaves, average each year, 4.03.
1086 hands, 2.61.

G.

DUTY ON BROWN SUGAR.

1789 - - -	1 cent per lb.
1790 - - -	1½
1797 - - -	2
1802 - - -	2½
1812 double, war duties -	5
1816 - - -	3

Since writing this table, the sugar in New Orleans is quoted from 5 to 5½ as follows:

Sugar on Plantation.—The greater part of the purchases now made are at 5¼ cents, for that of good quality. Crops have been sold at 5, and some obtained as high as 5½ cents for small lots of superior quality. A lot of the best quality was sold this week, delivered on the Levee in town, at 5½ cents cash. Cleared this week, 2,323 hhds. and 23 bbls.

[*New Orleans paper.*

H.

NUMBER AND VALUE OF SLAVES IN 1830.

Slaves in the United States 1820	1,538,128
Allowing 4 per cent. increase per annum for ten years - -	615,251
In 1830 - - - -	2,153,379
Value at $200 - - -	$430,675,800
Slaves in Virginia, 1820 -	425,153
Increase 10 years - -	170,061
Slaves in Virginia, 1830 - -	595,214
Value at $200 - -	$119,042,800

HORTICULTURE.

(From the New York Farmer)

Description of the Curculio, with remarks on some other Insects. By Wm. Wilson.

Mr. Editor:

Sir,—The entering into discussions on subjects not generally well understood, and on which it appears there is yet much to learn, renders the situation of those who offer their observations thereon to the public liable, in some instances, to the scurrilous and useless abuse of those who seem to have nothing else to present on the subject. From the great hue and cry that has lately been sounded so loudly about the awful destructiveness of the curculio to our fruit trees, the public had certainly good grounds to expect before this, some other kind of information from those who have complained so bitterly against it, than the mere high sounding proffer of a two thousand dollar premium. The very vague manner in which the premium is proposed for destroying a genus of insects, of which more than six hundred species were known to Entomologists many years ago, leaves strong grounds to suppose that those who offered it had either taken it for granted, that the public were in possession of a degree of information on the nature of this insect, to which they have not yet attained, or else that there must yet remain some necessity for further information on the subject by themselves; for it must be remembered, that the way in which the premium is proposed, implies a sufficient knowledge on the part of those who offer it, to warrant the belief that this knowledge is of sufficient extent to justify them in exciting horticulturists to set immediately about contriving means for effecting its destruction. This is an event that could never likely be accomplished without first acquiring an extensive knowledge of the nature and habits, &c. of the insect, which if the proposers of the premium had explained, the public would then have been at no loss to judge how far the complying with their proposals might have appeared practicable. Had they offered a number, say half a dozen or a dozen small premiums, to such as would publish a few useful statements founded on the actual observations that may have been, or that might be, made upon the curculio or any other injurious insect, the public would undoubtedly be immediately and highly benefited. No degree of credit would in this case be monopolized by bare pretensions. But the actual performer would receive his merited share. In this case the proposers would be placed on an equal and fair footing with the public And all that degree of merit to which their publication upon the curculio might entitle them, would no doubt be cheerfully assented to.

This is undoubtedly the first fair step to be taken in the business. And when it is accomplished, the public will be as well qualified to judge of the future measures to be pursued as the proposers of the premium. And they will then too, be better qualified to estimate what degree of credit is at present due to the projectors of such an undertaking. The above, at least, is my view of the subject. And the highest value I set upon any premium, is the gratification of being thought capable of contributing any thing of so much importance as to deserve the approbation of those for whom it is performed.

It is with a view to comply with the wishes of a correspondent in your last number, signed D. T. that I send you the following description of a curculio. Some of the perfect insects are in good preservation although a long while dead. The larvæ I have alive in active operation, riddling the stone of a peach like a sieve. As this is a state of the insect of full as much importance to be known by the horticulturist as that of its winged or perfect state, and one too, which Entomologists seldom define, I shall be as particular on this part as will enable I think any one who sees my description, to identify the same species wherever they may find it.

Its whole length when in the act of moving is about an eighth of an inch. Whenever it is touched, it rolls itself up like a pin head. Its color is white, but not like the dull opake white of the Egeria or Peach worm. Its body has the appearance of circular rings joined close together (annulated,) thinly beset with numbers of white hairs which all stand out erect. Its body tapers towards the tail. The circular rings rise like thicker folds towards the head, which is smaller than the fore part of the body, and has some resemblance to the head of a turtle projecting from under its shell, with a pellucid round like ball upon its crown, with two dark brown horny like appendages at the mouth. It has six legs on the three first fore rings of its body.

The specimens which I have, all procured from a half grown peach, which I took from under the tree two years ago, in which the egg of the curculio had been previously deposited, as the larvæ was soon after discovered in it. There was but little pulp upon the stone, and the larvæ after working a few tracks in it appeared to be lost. Some time afterwards a curculio made its appearance upon the woolly skin of the peach. I kept it close shut up in a box, in which was an ear of sound fresh corn, and thought little more about it, nor examined it until the late buzz about the premium, &c. I now find a number of living larvæ perforating the poor peach stone in all directions, with a lot of dead curculios and as many grains of the ear of corn bored out into round holes, just sufficient to contain one of the larvæ; and from several of which I have taken out the remaining exuviæ of the pupa. By which it appears the larvæ only attacked the grain for the purpose of accommodating the pupa as the larvæ are now all at the peach stone, and no more of the corn seems to have been meddled with, except the eating out of an aperture sufficient to contain the pupa.

Although I have expressed strong doubts as to the position in which the curculio attacks the peach, &c. I should think it derogatory to the obligations I am under to promote the best interests of horticulture, to keep back any information that may lead to public benefit, although such may be considered by some as operating more in the favor of the correctness of the opinions of others than those of my own. But when the generally very imperfect state of knowledge on the science of Entomology is taken into consideration, much allowance will be found proper to be extended to all who venture to express their sentiments on the subject to the public, when in some instances, such sentiments may, upon further investigation, be found erroneous. No man ought to be offended at being corrected by the superior discoveries of others, nor so vain as to sacrifice the accumulating use of his own for the sake of wishing to be thought what no man ever was. It was from not knowing, and which perhaps very few yet know, that the peach is attacked by the larvæ of a very different insect from either the egeria or curculio; and which by my finding it not to be the peach worm, I concluded erroneously that it was a species of curculio, but which on watching its change to the perfect state, proves to be a species of Julus, one of the apterous order of insects; and never ascends the tree, but that it devours the larvæ of both the curculio and the peach worm, I have ample evidences which I will communicate to you on some future occasion. I now proceed to give you a description of the curculio in my possession. The generic description I take from Stuart's Elements of Natural History, which is his 27th genus of the Coleoptera Order. "Curculio, Antennæ clavated; situated on a horny prominent rostrum; four filiform palpi." He divides the genus into several sections and describes 62 species. Under the first section designated "long snouted, thighs simple," he describes "Curculio Cerasi, black; the antennæ ferruginous; the thorax with two tubercles. Found on the cherry."

Under another section designated, "long snouted; the thighs dentated. Curculio Ceraci, Black; the elytra pale and oblong, found on the cherry and pear, eating the epidermis and marking the leaves with spots." Also under the same section, the "curculio pomorum. The anterior thighs dentated; the body grey and clouded. Found in the flowers of fruit trees: a small species; there are two transverse faciæ on the elytra." In another section "short snouted. the thighs dentated. Curculio Pyri, of a dark bronze color, found in the flowers of the pear and plum; the larvæ in the leaves of the pear. Elytra oblong with seven deep striæ with crenated striæ between. Feet and antennæ reddish."

This last agrees very near to the specific characteristic of the curculio I have; the only difference is in the deepness of the striæ, which in my specimen is slight, but this may be owing to its confinement from the light; and the larvæ being so greedy on the peach stone may be more an act of necessity than choice. The length of the curculio I have, is the same as the larvæ, about an eighth of an inch.

I have given the description of the other species, in hopes they may be of some use in assisting the readers of your paper to identify some of them the ensuing season.

The curculio nucum, or nut weevil, is figured in Loudon's Encyclopædia of Gardening, page 429; and is thus described by Stewart: "body grey of the length of the rostrum. Found in the nuts of the shazel. The rostrum before the antennæ is red; the scutellum, heart shaped and white. Loudon's figures of the pupa and larvæ, have the letters c and *d* wrong placed in my copy, as he refers to the figure letter c for the larvæ, which is the pupa; and the letter *d* which he refers to as the pupa is the larvæ. Both no doubt typographical errors, but which might lead those unacquainted with the insects into difficulties in attempting to identify such a species, which very likely exists here. Perhaps the innumerable perforations which are made in the acorns of our oaks, are the effects of a curculio of a similar species. Some of your readers who live near the oaken districts might examine some of them, and send you a description. It requires a little magnifying glass, of the cost of one dollar, to distinguish their forms distinctly.

I shall now conclude by recommending to the notice of your readers, one of the most powerful, stately looking insects that ever visits our gardens; and which he never fails to do during the months of July and August. I have no specimen of it by me, but I think it is about two inches long, with four large wings, of a bright iron rust red like color, with a bright light colored belt around its abdomen, from the extremity of which it unsheathes at pleasure a sting more like a warrior's dagger than any thing of an animal substance. It digs deep holes only in the hardest walks, to which it conveys the strongest caterpillars, and deposits them deep below the surface for the future food of its larvæ, the eggs of which I am well convinced are deposited in its body. It performs many other singular exploits amongst the insect tribes and plants. I have often wondered that it is not described in Say's two volumes on American Entomology; nor have I seen it noticed in any European work. Its four membranous wings and sting place it in the Hymenoptera order; and I think it will be found to answer the specific description of a Sphex. Its history is highly interesting to the horticulturist; but of this more anon.—My candle's down below the socket, and I think I hear the beetle's drone.

RURAL ECONOMY.

CURE FOR SHEEP.

MR. SMITH: *Lucky Hit Farm, Frederick Co., Va.*

Sir,—The malady which was alluded to last autumn, in a communication on the subject of the Frederick sheep, has become so frequent, fatal, and alarming, in this vicinity, that it is thought worthy of a special notice; and should you concur with me in opinion, that the following mode of awakening the attention of breeders, amongst which are numbered gentlemen of medical and surgical knowledge, to an investigation, and experimental examination of the disease, it will afford me much pleasure to aid you in eliciting such information as may remove the evil, or, at least, lead on through critical observation and inquiry, to its great amelioration—to find out its cause will be much more important, than to apply its cure. I have suffered but little from it as yet, but the loss of two or three ewes, especially if they are favorite ones, is very heavy with me—the subjects affected, are generally ewes with lamb. It is quite a selfish proposition; but you are authorised to say, that a presentment of a Frederick ram, will be made to any one who shall communicate to the American Farmer, a successful remedy for it, to be satisfactorily tested by him who makes the proposal, or else by some other mode, to secure to the shepherd some real advantage. The seat of the disease is most probably in the head. The symptoms are a glassiness of the eyes—apprehension of fear—general disposition to be alone—sometimes turning round—a twitching of the limbs, similar to a nervous affection—and a state of indolent lassitude, much inclined to lie down from apparent stupidity. In a short space of time, I have just witnessed the recovery of a fine ewe twice, as if from a trance—in the lucid interval she blated, and appeared much pleased to join the flock, and was, to all appearance, as well as ever. Bleeding in the mouth and neck has been tried, and failed. Operations with a wire, up the nose, have not succeeded, and are dangerous at best. I have this morning been engaged in operating on the foot to extract a worm, which I was informed by a farmer from the state of Ohio, was a panacea in his neighborhood, for all complaints. I have but little faith in it, but think it probable enough that this worm, which I have found, is the cause of frequent lameness in the fore foot, which I have never been able to account for. With a sharp knife, lay open the skin just above the duct in the fore foot, about three fourths of an inch in length, up and down the leg—probe it with a shoemaker's awl, and a worm from half an inch to one inch long, will be extracted, which when opened, will be found to be covered with hair within, without any visible intestines, and having an external like the ordinary appearance of the surrounding flesh. Should any good result from my experiments on the subject, it will be communicated.

I am, very respectfully, sir, your obedient servant,

R. K. MEADE.

N. B. Several of my neighbors have lost from six to eight of their fat ewes, with the prospect of losing as many more.

BUCKWHEAT STRAW.

The following method of extracting a blue color for dying, from buckwheat straw, we find in a late London periodical:

"The straw should be gathered before the grain is quite dry, and placed on the ground in the sun, until it becomes sufficiently dry to be taken from the husks with facility. The wheat having been removed, the straw is piled up, moistened, and left to ferment till it is in a state of decomposition, when it will become of a blue color; this indicates the period when it should be gathered, and formed into cakes, which are to be dried in the sun, or in a stove. On these cakes being boiled in water, the water assumes a strong blue color, which will not change either in vinegar or sulphuric acid. It may, however, be turned into red with alkali, into a light black with bruised gall nuts, and into a beautiful green by evaporation. Stuffs dyed blue with this solution; which is to be used in the same way as vegetable matters of similar species employed in dying, become of a beautiful and durable color."

POISON FROM WEEDS AND POTATO TOPS.

We have received a communication from Mr. J. H. Gibson, of Philadelphia county, from which the following facts are obtained. On the 15th of Dec. last it rained very plentifully. The next morning a favorite cow was lying down and could not get up to be milked. She appeared in some pain, groaned, and her head was doubled back on her side much in the manner of a kitten asleep. On being moved, her muscles were found very flexible, but she had not the power of moving from any position in which the strength of several men placed her. She was drenched with oil and whiskey. There was no distention. The eye looked bright except when occasionally rolled about in the paroxysms of pain. The cow had always been healthy, and was so the night before. She died, and in the gasp of death discharged a large quantity of dark colored fluid from her mouth and nostrils in a broad stream. On dissection, the first stomach had in it some dark colored water mingled with the food. The second stomach was filled with the different articles eaten in a very dry state. The gall bladder was much distended, and full of a dark fluid which had discolored in a short time the adjacent viscera.

Soon after, a pig belonging to the writer was affected by similar symptoms and soon died. Ten minutes after its death the stomach was found full of food, and directly opposite to something eaten, which resembled the dung of the cow; the stomach was found of a red ash color.

It appears that the writer had deposited a "very large quantity of potato vines in the barn yard, which is hollow in the centre, so that the water does not pass off." Potatoes belong to a poisonous class of vegetables, too many of the weeds were ripe before they were hauled into the yard, and strong infusions remained in the bottom of the yard; and from various circumstances and appearances, detailed in the communication, the writer is of opinion that the cow having eaten of drier food than usual, and drank of this contaminated water, "was poisoned by the infusions of weeds of various descriptions, such as grow among highly manured crops, and of the vines and apples of the potatoes. The writer adds, "I have kept cows and sheep in a close barn-yard for months in the winter without water, *and when they were freely fed with ruta-baga and potatoes,* they would not drink. But at the commencement of the season greater care is necessary."—*N. E. Farmer.*

LINEN SPINNING MACHINE.

Some months ago we noticed the construction of a Linen Spinning Machine, by an ingenious machinist in this place. We are pleased to state that it is now completed, and will be shortly in full operation.—It is one of the most ingenious contrivances we have ever seen,—very complicated in its structure, and altogether a masterly piece of workmanship.—It is erected in the old Presbyterian Church; and is well worth the attention of the curious in machinery, and the friends of improvements in the manufacturing art.—It is a great achievement to manufactures, and we hope ere long will further illustrate the fact, that in proportion as the art of spinning is facilitated and accelerated, by improvements in machinery, will the products of the loom be cheapened. All the tariffs in the world piled on the top of one another, would not "cheapen the price to the consumer," of linen, half as much as the general use of this important invention. [*Frederick Citizen.*

MISCELLANEOUS.

FLORIDA LANDS.

The Legislative Council of Florida, assembled at Tallahassee on the 4th ult. Gov. Duvall, in his communication to them, says:—"The success of our planters will bring a flood of population into every section of our Territory. Although the most sceptical in former years, could not deny that the samples of sugar manufactured in Florida, were equal in colour and brilliancy of granulation to the general crop of Louisiana, the profitable manufacture of sugar, on an extended scale, was considered problematical. The enterprise of our planters has dissipated every doubt.—Extensive works have been erected, which, for beauty and solidity of construction, equal the best establishments in the southern country. The results of the past season have demonstrated the equality of our lands with those of Louisiana, both in regard to the quality and quantity of sugar manufactured. With those advantages, and profitable as may be the culture of the cane—the culture of Sea Island Cotton, and Cuba Tobacco, have been confidently maintained, by some of our most intelligent planters, to yield a greater profit. It is evident from the abundant crop, and the increasing length and glossiness of fibre, clearly distinguishable in each succeeding year, that our climate and soil are peculiarly adapted to the growing of the Sea Island—as well as every other description of cottons: but this fact will excite no surprise when we recollect that this plant is indigenous to the Islands and shores of the Gulf of Mexico, and was manufactured by the Aborigines into clothing and defensive armour.

"When the quality of our Cotton and Tobacco becomes known in the home and foreign markets, they will be properly appreciated, and not requiring a fixed capital, as in the manufacture of sugar, they will eventually yield a rich return, not only to the opulent planter, but also to the industrious yeomanry of Florida.—Various and profitable as are these sources of independence, kind Providence with bountiful hand has poured out other blessings on this favoured land. We can number not only the rich productions of indigo and silk—but this is, also, the country of the almond, the olive, fig and the vine. The orange, the pine apple, and the banana, which have hitherto been considered as appertaining almost exclusively to the Indies, have been cultivated successfully in the vicinity of Tallahassee. Blest with so many sources from which we may derive pleasure and profit, it depends upon ourselves alone, by a wise course of legislation, to perpetuate to our posterity, the full enjoyments of these choicest gifts of heaven."

On the Existence of Animalculæ in Snow.

The following account was sent by Dr. J. E. Muse in a letter to Dr. Silliman.—"When the winter had made a considerable progress without much frost, there happened a heavy fall of snow. Apprehending that I might not have an opportunity of filling my house with ice, I threw in snow, perhaps enough to half fill it. There was afterwards severely cold weather, and I filled the remainder with ice. About August, the waste and consumption of the ice, brought us down to the snow, when it was discovered that a glass of water, which was cooled with it, contained hundreds of animalcules. I then examined another glass of water, out of the same pitcher, and with the aid of a microscope, before the snow was put into it, found it perfectly clear and pure, the snow was then thrown into it, and on solution the water again exhibited the same phenomenon—hundreds of animalcules, visible to the naked eye with acute attention, and when viewed through the microscope, resembling most diminutive shrimps, and wholly unlike the eels discovered in the acetous acid, were seen in the full enjoyment of animated nature.

"I caused holes to be dug in several parts of the mass of snow in the ice-house, and to the centre of it, and in the most unequivocal and repeated experiments had similar results; so that my family did not again venture to introduce the snow-ice into the water they drank, which had been a favourite method, but used it as an external refrigerant for the pitcher.

"These little animals may class with the *amphibia* which have cold blood, and are generally capable in a low temperature, of a torpid state of existence. Hence their icy immersion did no violence to their constitution, and the possibility of their revival by heat is well sustained by analogy; but their *generation,* their *parentage,* and their *extraordinary transmigration,* are to me, subjects of profound astonishment."

Pleasure derived from Cultivating Flowers and Fruits.

"Of all recreations, the cultivation of fruits and flowers is the one which ought to be the most encouraged. It is the most congenial to civilization, and conduces very materially to health; attaches men to their homes, consequently, in many instances, prevents a life of dissipation; inclines the mind to serious thought and reflection; and teaches us to look through nature up to nature's God.

"Every rank of people, from the humble cottager with his favourite auriculas and polyanthuses, to the lady of fashion with her more tender exotics, equally enjoys flowers as a gratification, and nothing more conspicuously bespeaks the good taste of the possessor than a well cultivated garden; and it may be generally remarked, that when we see a neat cottage-border well stocked with plants, the inhabitant is respectable, and possesses domestic comfort; whilst, on the contrary, a neglected garden but too frequently marks the indolence and bespeaks the unhappy state of the owner. But what must be the satisfaction, as well as essential profit, which the botanist derives from a closer examination of these beauties of nature!—They behold them as the wonderful works of the Creator, and are convinced that vegetation could not possibly be a mere matter of chance, but must be effected by the all-creating wisdom of a beneficent Being.—The poets are never more fortunate in their illustrations than when they sing the beauties and virtues of these splendid productions; nor does the artist derive less satisfaction in delineating their delicate and lovely forms with the pencil. Indeed, of all luxurious indulgences, that of the cultivation of flowers is the most innocent, and (except our terrestrial angels, ever bright and fair) they are of all embellishments the most beautiful; therefore, we cannot for a moment doubt that the Stockport Floral and Horticultural Society will meet with such fostering aid, as to place it foremost in the rank of its competitors." [*Stockport Advertiser.*

Frightening and Enticing Animals.

An interesting encounter with a white bear is given, and the important information added, from "subsequent experience," that the best mode for a botanist to get rid of bears, when attacked by them, is to rattle his vasculum, or specimen box, when they immediately decamp. This easy way of driving off so formidable an enemy gives rise to a thousand reflections. How many individuals may have perished from ignorance of this simple fact! The first idea of opposing brutal force is the employment of brutal force; the second, that of stratagem; the last step is the employment of scientific knowledge, or the force of the mind. Most wild animals are frightened by fire; but may there not be some more simple means, and means always at hand for effecting the same object? Cannot the schoolmaster be set to work among the brute creation?—Every animal may have some specific action, sound, or smell, which will frighten him! May not a man in Africa one day frighten away the hungry lion by some means as simple as Mr. Drummond employed against the bear? If success be attained with the lion, then, by analogy, it will extend to the tiger, and other animals belonging to the same group. In describing all animals 'the mode of frightening, and of enticing them, ought to be given as far as known; and all zoologists ought to pay particular attention to this branch of their subject.

THE FARMER.

Baltimore, Friday, Feb. 18, 1831.

New Silk Reeling and Twisting Machine.

We have much pleasure in announcing, that Mr. Hack, the ingenious machinist of the Savage Factory (near this city) has invented a machine for *reeling and twisting silk* at the same time. It was exhibited at the Farmer office on Friday last, and the editor tried it himself, by winding off some cocoons, which it performed to great perfection—winding off the silk, twisting it, and winding it upon bobbins, at the same time; making the thread of raw silk as round, even and smooth, as the most perfectly drawn wire. We also made some sewing silk of some flos, far superior for evenness and twist, to any we have seen. The machine is intended to perform every operation necessary in preparing the silk from the cocoon to the loom, except extracting the gum. After the first operation of drawing the fibre from the cocoons, the bobbins are placed upon the spindles, and as many original threads as may be wanted to form one of the required size, are combined, and passed through the machine, when the thread is doubled and twisted, and finished for whatever purpose it may be wanted. The degree of twist can be varied as may be necessary, so that the most partially twisted flos, or the most perfect warp, filling or sewing silk, may be made with equal facility. Indeed, with the aid of this machine, we see no reason why our farmers' wives and daughters may not dress themselves in domestic silk, with as little labor and expense, as are required now, in the production of their most common cotton homespun. The management of the machine is easily learned; as may be supposed from the fact, that the Editor made several kinds of silk, of a superior quality, with it, at the first trial; and that it did not require five minutes to acquire a knowledge of its management. Little girls can work it perfectly, and we should suppose one girl could draw from the cocoons, and finish perfectly, at least a quarter of a pound of silk a day, with the assistance of a small boy to turn the crank for her. We cannot pretend to describe the machine. It is about two feet wide, two and a half high, and probably three feet long. It winds off and twists eight threads at a time; but they can be extended to any required number, so that ten, twenty, fifty or a hundred women may be employed at the same machine; but, any considerable enlargement of the machine, would require horse, water or steam power to work it—probably a man might turn it for the employment of ten women, but not for more,

The machine has been taken to Washington for exhibition to the members of congress, and probably to secure letters patent, but will be deposited in the Farmer office for public inspection, in a few days, when we shall be happy to shew it to those interested. Although Mr. Hack intends to patent his valuable invention, it is merely for the purpose of securing the manufacture of the machines—it will add nothing to the cost of them to the public. The cost of a complete machine will not exceed sixty dollars, and the Editor is authorised to receive orders for them at that price. The workmanship is really beautiful, and of the highest finish—as creditable to Mr. Hack's skill as a workman, as the invention is to his genius.

Mr. Hack had never seen a cocoon, when a gentleman called on him to make something with which he could reel silk. He requested the gentleman to bring him some cocoons, and said he would try to make something to suit him. The cocoons were brought, and he produced the above mentioned machine. This furnishes another evidence of the capability of American genius to supply every thing that American necessity or luxury may require. It is probable that this machine will supersede every other in use in silk manufacture—it certainly, we think, will render still more inexpedient the expenditure of forty thousand dollars by government for teaching a few young men to reel, and the importation of machinery for twisting silk.

Improvement of Worn-out Lands.—Will some of our correspondents, who have had experience in renovating worn-out lands, favour us with an account of their operations, with their results? In treating this subject, it is our desire to collect and embody all the practical information possible, being well aware that little dependence is to be placed upon the speculations of mere theory. We would particularly invite attention to the following points:—1st. The nature of the soil which was the subject of improvement; whether high or low, sandy, gravelly, or clay; if sandy, whether calcareous or silicious; if clayey, whether white, blue or red; and whether it contained any material portion of iron in any form. 2nd. The process of improvement, whether by the addition of clay to sand, sand to clay, liming, the application of manures, and what kind, by fallowing, or grazing. Has the plan of sowing buckwheat on such lands, and ploughing in the green crop when in blossom, been tried, and if so with what success? It is believed that two or three crops might be ploughed in in the course of the summer, and that two seasons of such management would effectually reclaim the most sterile soil. Has any good effect been produced by deep ploughing in worn-out soils? Some suppose that this of itself would render most barren soils fruitful, and that subsequent proper management would keep them so. We should particularly like to have the result of the grazing system from those who have given it a fair trial in renovating land. It has been objected to by many good farmers, upon weighty considerations. They think that a great part of the fertilizing properties of the manure dropped by cattle on pasture lands, is evaporated and lost to the soil, by exposure to the sun and weather. It would also be interesting to know the difference, if any, of effects produced by grazing cattle and sheep. We earnestly solicit from experienced farmers such information on this subject as they may be able to give; and we hope no one will be deterred from furnishing it by inexperience in writing—give us the facts, we care not how plain and simple their dress, and we will take care of their proper appearance in our columns.

Old Things.—The Editor of the American Farmer acknowledges with gratitude, the receipt of a package of valuable old papers, on agricultural subjects, from Dr. James Mease, of Philadelphia, which will be laid before the readers of the Farmer as occasion offers.

The Editor has also received from a much respected gentleman of this city, a volume of the "Transactions of the Philosophical Society of America," from January 1769 to January 1771. It contains many very valuable articles on agricultural subjects, notwithstanding the present comparatively advanced state of American husbandry, besides some very curious articles on other subjects to which our journal is devoted, and we shall make copious extracts from it hereafter.

Prices Current in Boston, Feb. 9.

Apples, new, bbl. 1.75 a 2.00 *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 8.50 a 8.75; cargo No. 1, 7.25 a 7.75; No. 2, 6.50 a 6.75. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 6.50 a 6.62; Genesee, 6.75 a 6.87; Rye, best, —- a ——. *Grain*, Corn, bu. .72 a 75; Rye, .75 a .80; Barley .62 a .69; Oats 40 a 42. *Hogs-Lard*, 1st sort new, lb. 9 00 a 10.00; *Pork*, clear, bbl, 17 a 20; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Wool*, Merino, full blood, washed, .60 a 62; do. do unwashed, .— a .—. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .52 *a* .58, do. half blood, .48 *a* .50; do. quarter, 40 *a* 42. Native, washed .40 a .42; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 45 *a* 50.

Prices Current in New York, Feb. 12.

Beeswax, yellow 19 a 21. *Cotton*, New Orleans .10½ a .11½; Upland, .8¾ a .10; Alabama, .10 a 11. *Cotton Bagging*, Hemp, yd. 18 a 20; Flax 12½ a 16; *Flax*, American, 7 a 8.——*Flaxseed*. 7 bush. clean .13.00 a .13.25 *Flour*, N. York, bbl. 6.50 a ——; Canal .6.75 a 7.00; Balt. Hwd. st. 6.50 a 6 62½—; Rh'd. city mills 6.75 a —— country, 6.50 a ——; Alexand'a. 6.50 a 6.62; Fredericksburg 6.37 a ———; Petersg. 6.37 a 6.50; Rye Flour, 4.00 a 4.12; Indian Meal. per bbl. 3.87½ a 4.00; per hhd. ——— a 15.00. *Grain*, Wheat, North, 1.40 a 1.45; Vir. 1.35 a 1.40; Rye, North, 75 a 76; Corn, Yel. Nor. .— a 75; Barley. 78 a 79; Oats, South and North, .40 a .44; Peas, white, dry, 7 bu. 5. Beans. 7 bu. 7.00 a 8 00. *Provisions*, Beef, mess 8.50 a 9 00; prime 5.50 a 6.25; cargo 4.50 a 5.00; Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 8¼. a .9¼; Pork, mess bbl. 13.00 a 14.25; prime 9.75 a 10.50.

SEEDS.

The Subscriber has in Store, for sale, Orchard Grass, Herds and Lucerne Seeds, and 50 bushels of Clover Seed, of superior quality—and also a general assortment of the Messrs. *Landreth's* Garden Seeds, at wholesale and retail; all of last year's growth.

Likewise,—A general assortment of Agricultural Implements, as usual. He has for sale, the Messrs. Robbins' celebrated Corn Planter, or Drill, for drilling all Seeds that are capable of being drilled. Price. $10—including three Drills, or Droppers.

J. S. EASTMAN.

N. B. Fruit and Ornamental Trees, Bulbous Roots, Flowers, &c. will be furnished from the Messrs. Landreth's Nursery, to order. Orders for Trees should be given early.

J. S. E.

Feb. 4.

BALTIMORE PRICES CURRENT.

Baltimore Market.—The navigation continues obstructed by ice, and of course little business is doing. Sales of Howard street and city mills flour have been made at quotations, and the last purchases of Howard street from wagons were at $5.62½. What little red wheat there is coming in by wagons readily sells for $1.20. The quotations for white wheat must be considered nominal. Our highest rate for beef can only be obtained for that which is very superior.

Tobacco.—Seconds, as in quality, 3.50 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week comprise 8 hhds. Ohio.

Flour—best white wheat family, $6.50 *a* 7.00—super. Howard-street 5.75 *a* —; city mills, 5.75 a ——; Susquehanna, — *a* —; Corn Meal, bbl. 2.25 Grain; red wheat, 1.20 *a* ——; white do. 1.25 *a* 1.30 Corn, white, — *a* ——-yellow — *a* ——-new white — *a* .——yellow — *a* ——Rye, .— *a* .—Oats, 30 *a* 31, Beans, 90 *a* 1.00-Peas, 50 *a* 60—Clover seed 5.25 *a* 5.57 Timothy, 2.00 *a* 2.50—Orchard Grass, 1.25 *a* 1.50—Herd's,— *a* 1.00—Lucerne 30 *a* 37½ lb —Barley, 62½ Flaxseed —— *a* 1.30-Cotton Va. 9½ *a* 10½-Lou. 11½ *a* 12½ —Alab. 9 *a* .11—Tenn. .9 *a* .10—N. Car. .9 *a* .10½—Upland 10 *a* 11—Whiskey, hhds 1st p 27½ *a* —; in bbls 29½ *a* 30—Wool, common, unwashed, lb. 15 *a* .16——washed, .18 *a* .20-crossed, .20 *a* .22—three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $220 *a* —; Country, dew-rotted, 5. *a* .6c.-lb. water-rotted, .6 *a* 8c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.00 *a* 4.25—Mackerel, No. 1, 6.37½, *a* 6.50—No. 2, 5.87½ *a* 6.00-No 3 3.43¾ *a* 3.50; Bacon, hams Balt. cured 10c.—Feathers, 34 *a* —Plaster Paris, cargo price per ton, 4 25 *a* 4.31¼, ground, 1.37½ *a* — bbl.-Iron, gray pig for foundries per ton 30.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00.—Prime Beef on the hoof, 5.00 *a* 6.25.

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Letter of Mr. Johnston, of Louisiana, to the Secretary of the Treasury, in reply to his Circular of the 1st July, 1830, relative to the Culture of the Sugar Cane; with explanatory tables—Description of the Curculio, with remarks on some other insects, by W. Wilson—Proposal of a premium by R. K. Meade for a remedy for a disease in Sheep—To extract a blue Dye from Buckwheat Straw—Poison from Weeds and Potato Tops—Value of the Land in Florida—On the existence of Animalculæ in Snow—Pleasure derived from Cultivating Flowers and Fruits—Frightening Animals—Editorial, New Silk Reeling and Twisting Machine; on the Improvement of Worn-out Lands.—Prices Current in Boston, New York and Baltimore.

EDITED BY GIDEON B. SMITH.

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TERMS.

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AGRICULTURE.

IMPROVEMENT OF AGRICULTURE.

Lucky Hit Farm, near White Post,
Mr. Smith: *Frederick Co., Va. Feb. 15, 1831.*

In a late number of the American Farmer, your friends are invited to aid you in a plan you have suggested for the improvement of our Agriculture. However desirous one of them may be to join in giving full vigour and efficacy to a scheme of such universal importance, he must nevertheless be satisfied to signify his warm approbation of it, not being able to contribute any thing certain to its benefit. But as discussion, and a now and then idea somewhat changed or improved, has generally the effect of introducing an interest, and throwing light upon a subject, a few suggestions may not be unacceptable. Every reflecting and intelligent man, devoid of unreasonable prejudices, and not singing the song, of let us alone, let us alone, with a chorus, we are doing well enough, &c. will hail such a proposal with lively sensibility, hoist his colours, and set sail under the banner of your agricultural enterprise—at least he will wish it God speed, since he cannot withhold from it the possession of magnanimous desires, founded on rational plans of doing good, exempt from the least possible prospect of injuring one individual to benefit another.

But, sir, do not be chagrined, or relax in the steady, and persevering part you have to act, if you are not immediately seconded to the extent of your wishes or the merit of your plans; since the most illustrious examples, and the most practical men have been entirely unheeded on this very subject. More than 30 years since, Washington recommended the establishment of a board of agriculture, at the seat of government,—in that city which we trust will be improved and protected for his great name's sake—such an institution would have been a receptacle of knowledge, and a fountain of science to the nation. Why has it not been established? Most especially, let the *farmers* of this republic, ask their best and most unprejudiced understanding this solemn question—and another like unto it—why has the National University been so long neglected; as all our institutions are dependent for their success on education? Shall it be attributed to the honest and consciencious scruples of a few, or to the dependent, fearful, calculating, and vacilating spirit of party so inimical to the interests of our liberal institutions, since the golden days of Washington? On his simple recommendation might this board have been safely established, with the numberless auxiliaries in the states and counties: for he was a practical man throughout; on the soil—with the sword—and through the civil departments of government. Again on the soil; when he recommended the association of science with the labours of the husbandman—his advice was founded in law, truth, and liberality, consulting only the most disinterested intelligence with a single eye to the prosperity of his country. The difficulties attending popular meetings of farmers even for the bettering of their own profession will not perhaps be easily overcome; each one, supposes he is pursuing the right way, and is happy in the industrious prosecution of the pleasing variety of labour ushered in by each revolving season; they may be assembled at an annual fair, as long as an interest, and novelty is kept up, through the zeal, and exertions of its officers; but ——— Hence, the propriety of the establishment of Boards of Agriculture composed of the best materials to be collected—practical farmers, with but few exceptions, in favour of men of any profession, whose talents, literature, and taste, would make such union reciprocally desirable. A board of the most intelligent farmers to hold periodical meetings in the county-town, of each county in the state, might in a short time introduce a train of usefulness scarcely to be anticipated prior to a fair experiment. Immediately, the experience of 12 or more gentlemen is brought together from different quarters of a large extent of territory, as composed by one of our counties or districts, &c.; but not theirs alone, it would be their duty, and should be their pleasure, to contribute all the information to be collected in their different neighbourhoods from the varying practice of the best farmers. As a standing committee of agricultural judges, taking the term in its liberal and extended import, they would be of immense importance: for instance, it is well known how our communities are imposed upon by worthless machinery; this may be effectually prevented by the diligence, and intelligence of a board, in making it the interest of inventors to seek a recommendation from them, or suffer from an impartial exercise of their opinion—it must be obvious how great might be the saving to the community of time, money, &c.—and to scheming individuals by a little timely advice from a body of the most discreet, responsible, and intelligent men to be chosen in any district of country.

Again, their opinions, with a little experience, would be found of importance in deciding on the merits of our domestic animals—those having the most inferior ones would be directed where to apply for better. Some in the possession of really good ones, but ignorant of it, might have their eyes opened as to their own resources, and if any were disposed to boast of what they had not, or innocently deceiving themselves, they would be better informed; the whole character of our stock-breeding might be changed by an effort to discriminate the good from the bad, in comparing them in their various properties and uses; and there would be an evident advantage in those who excelled in receiving an advanced price for breeds to benefit those of their less fortunate neighbours, a certain and mutual benefit would accrue. But we cannot dwell on this division of the subject, and there are many others, which it is hoped some well qualified examiner will shew the importance of. Neither can we leave it before expressing a belief that such institutions would have a happy moral effect upon the state of our society; that the attention of the most enlightened and virtuous men of the land would be drawn to the importance of considering not merely our physical resources and prosperity in the changes of substituting, orchards, vineyards, &c. &c., for the deteriorating influence of corn cultivation connected with distillation, but the co-operating progress of the mind, through popular and appropriate education, as a means of refining and sanctifying to our rational use and enjoyment all those privileges and advantages for which we should be so eminently thankful to a kind Providence. The preceding remarks having been applied to county societies, a brief notice will be taken of a state board to be formed out of the minor ones, on the presumption that the great interest of the state is agricultural, and that legislative arrangements would be chiefly made by representations from such interest. The plan of a board to be sustained by the public purse, would be devised by the collected wisdom of the commonwealth—it would require at least one salaried officer to attend to its concerns during the session of the legislature, consequently would require a moderate appropriation to carry it into effect, during which period, a board would have ample time to listen to the reading of the county reports, (such information as would be conveyed through their representative,) and order such portion of them to be published in a volume, to be annually issued from the press. Query—would not the sale of so interesting a work, more than pay the expense of a board, &c. and not infringe on that precious treasure which our politicians guard with so much solicitude for the people? Can it for a moment be doubted, that if voluntary associations of our cleverest men in each county or district were to collect and send to the legislature, reports of their inquiries and labours by their representative, that its united voice would be in favour of combining these reports in a volume for the benefit of the state; would not each board be then amply remunerated in the receipt of the modes of farming, and a knowlege of the resources of all parts of their state? A scheme of such usefulness would then originate with the people, and be carried into more thorough effect by their representative councils. But in order that county boards should be still more useful and efficient in their character, they must be possessed of funds. Shall they not be emphatically deemed boards for Internal Improvement? and if so, possess a just claim on the legislature, at least to unite with them in this general scheme of improvement, if they will not, as the state of New York has done, appropriate more than $50.000 to improve their agriculture through state societies. See what she has accomplished by dismissing her prejudices, and squeamishness, and putting forth her energies. A board should hold an annual fair, and issue its premiums, &c. But I fear, Mr. Smith, we are neither old enough, wise enough, nor generous enough, to place the theory of our agriculture on the beautiful eminence you have viewed it from, in order to its practical perfection; for if indeed the pursuit of agriculture is not worthy of a special record, and the observations of science, and learning, it is inferior to all other professions. To enumerate the advantages of a state board of agriculture, would require an extended essay, whereas hints only are here intended for others to take the advantage of. But why should not such regularly established institutions, be fostered by the bequests of friends, like all others? There are many whose inclinations and tastes would lead them to acts of generosity there, while others would be neglected; and when we dispassionately consider that seven-eighths of mankind are engaged in this occupation, which contributes more to private bliss and national prosperity than any other, through the agency of industrious, temperate, and moral habits, some of the essential pillars of good government; is it wonderful to conceive that institutions properly established will hereafter receive the support of the wealthy and wise in their living contributions and dying bequests? Already has a zealous, however humble individual, who has made great sacrifices to improve the breed of sheep, and whose confidence in that system which embraces the cultivation of every resource to be found above or below the surface of our soil, has solicited the favour of each state board or society, to be permitted the honoured privilege of presenting each of them with a pair of a race of sheep, believed to be better calculated to suit the general demands of our population than any other breed amongst us, and regrets that there are so few instituted to receive them. If a due portion of the talents of our public men were devoted to objects of reciprocal interchange and improvement, there would be less occasion for those sectional jealousies which not only embitter, but retard the general advancement of our common country. I have thus, sir, clumsily gone through little more than a second edition of your own remarks, save that I have not dared to descant on some of your most desirable plans, such as too many of our politicians would laugh to scorn. I mean experimental farms, professorships, &c. &c., it may be added, however, that they have been advocated by the theoretic philosopher, as well as the sound practical man. State societies would contribute to the formation of that central institution recommended by Washington.

Permit me, sir, before I bid you adieu, to take the liberty of suggesting a plan, which I really believe would add not a little to the interest and value of the American Farmer as a repository of agricultural information. It is, that its Editor shall offer an annual premium for the best essay on some farming subject, to be proposed by him; at least one premium purely as an honorary reward for the exercise of talents, which may diffuse their influence from one end of our country to the other.

I am, very respectfully, sir, your well wisher,

Richd. K. Meade.

(From the New England Farmer.)

ADDRESS

Delivered before the Middlesex Society of Husbandmen and Manufacturers, at their Annual Festival, Oct. 7, 1830. By Elias Phinney. *Published at the request of the Society.*

(Concluded from page 370.)

Major Wheeler of Framingham, a good practical farmer, has been more successful in his attempts at paring and burning. He has for three years obtained great crops of hay from peat meadows, managed in this way, with no other manure than the ashes produced by the burning; the crop of the third year being fully equal to that of either of the former years. The different results of these two experiments may have been occasioned by a deeper paring in the latter than in the former case. My neighbor pared with a hand machine, and was probably not so deep as that done by Mr. Wheeler, who used an instrument drawn by oxen. The deeper the paring, the greater, of course, will be the quantity of ashes from the burning, and the more durable the effect.

The objections to this practice, however, are, I apprehend, well founded. That there must be a very considerable loss of enriching animal and vegetable substances by the fire, cannot be doubted. While the stimulating power of the salts contained in the ashes continues to operate, the produce may give an abundant reward for the labor bestowed, but when this has subsided, it will be found that the soil has been robbed of some of its essential ingredients, having nothing left but a lifeless crust, covering a dead mass of inert matter beneath; and that fertility cannot be kept up, without frequent and expensive applications of manure.

The effect of covering meadows with sand or gravel, is better known, and its merits more generally tested. As this is not attended by a destruction of any of the valuable animal or vegetable matter, it may, for this reason alone, be preferable to paring and burning. But there are two very substantial objections to this practice. In the first place, it is very expensive, and in the second place, it does not entirely exterminate the wild grasses, which will be continually springing up, and rooting out the cultivated grasses, unless there be frequent and expensive top dressings, and as frequent sowing of grass seed. Besides, I have always found the produce of these gravelled meadows to be of a coarse, ordinary quality, mixed with much of the rank herbage peculiar to wet grounds, far less nutritious than upland hay, and unsaleable in market, except at a reduced price.

The late venerable and intelligent Col. Pickering, in an address to the Essex Agricultural Society, of which he was President from its first establishment, to near the close of his long and useful life, remarked, "if meadows admit of being thoroughly drained, I would never carry on gravel or sand, absolutely barren substances." Thousands of dollars have been expended in this neighborhood in burying the rich soils of our low meadows, with these "absolutely barren substances." The great expense, together with the ordinary quality of the produce from meadows covered with gravel, and the necessity of frequent and expensive top dressings, are too well known and too generally acknowledged, to require a statement of any farther objections to this practice.

The third method, and now the most common, is ploughing and cultivating with fallow crops, for one or more years, after draining, according to the nature of the soil. This is decidedly preferable to either of the two last mentioned methods of managing wet meadow grounds.

The Rev. Mr. Colman, of Salem and Lynn, a gentleman distinguished for his literary attainments, as well as for his agricultural skill, has given some very useful, practical hints, upon this subject.

"My meadow," he says, "consisting of one acre and a quarter, is completely drained. It was ploughed in the spring and planted, and promises to yield a good crop of potatoes. I design to plant it one year more, when I think all the sods and hillocks will be completely broken, and then lay it down to grass, confident of success, from the result of a similar experiment, made upon a piece, of about one fourth of an acre, which from being impassable and worthless, and filled with skunk cabbage and other noxious weeds, is now the best piece of grass land on the place, and though drained and laid down after one summer's fallow, with manure, and sowing only a few turnips, with hoeings sufficient to break the sods to pieces, and afterwards sowing with grass seed, and carefully rolled, has this year produced two abundant crops of hay!"

In this experiment, Mr. Colman has omitted to state the quantity of manure that was used, and we are therefore unable to say how far his plan may with safety be adopted as an example by other farmers. My own experiments, in this way, have not been so successful. It may have been owing to a deficiency of manure, but I have attributed it rather to the loose and puffy condition in which the soil was left after fallowing and laying down to grass. My crop of hay was very small, and I believe the same cause, which had operated to prevent the growth of my corn, had also prevented the growth of the grasses, the texture of the soil being too loose, and the cavities consequently too large to be filled by their small roots. The sward or turf of peat meadows and swamps, is much more compact, and the parts much more finely divided, than the peaty and loose substance which lies under the sward, and the more it is ploughed the more it is likely to become mixed with the coarse and spongy subsoil. Any more ploughing or stirring, therefore, than is necessary to destroy the natural herbage, is, in my opinion, not only unnecessary, but highly injurious. Such a course, then, as would be most likely to effect these two objects, viz. to exterminate the wild grasses and noxious weeds, and, at the same time, to preserve the natural compactness of the sward, I apprehend, will be found to be the most advantageous method of reclaiming these kinds of soil.

These objects, I am confident, are more sure of being attained by what is called *bogging*, which consists in turning over the sward, or turf, with a hoe or instrument made for the purpose, than by any other process. In the fall of 1826, I had the sward of about one acre of peat meadow, (the peat being from three to five feet deep,) turned over with a bog hoe; having first been completely drained. It was then rolled as hard as it could be, with a heavily loaded roller. A top dressing of six loads of loam and an equal quantity of compost, was then spread over the whole, the grass-seed then sowed, then bushed and rolled a second time. I have, for the three years past, taken from this ground, two large crops of excellent hay, each year, the present year's crop being larger than that of any former year. All the natural grass and coarse herbage, seem thoroughly exterminated, and a firm and compact surface formed, which will admit of cattle and wheels to pass over it, without apparent injury. No looseness of surface, no such barren spots, nor stinted grass, as were frequently to be met with in peat grounds which had been ploughed and planted. By this method the soil is not robbed of any of its nourishing properties;—all its valuable qualities are retained, and the loam spread upon the surface, filling the pores that might remain open, the fine roots of the cultivated grasses find means of penetrating the compact sod, and derive abundant food from the decomposing vegetable matter that was turned under. I have set this acre over with apple trees, placing the roots upon the surface and covering them with loam, and they are quite as thrifty, and promise as well as my best trees, planted in upland. Upon the whole, I am fully satisfied, that this is the best mode of reclaiming our wet meadow grounds, and with the instrument invented and used by Major Wheeler for paring, I believe it will be found to be the most economical.

The soil with which we have most to do, and to which I shall next invite your attention, is a thin, gravelly loam. The severe cropping, to which this has been subjected, for a long series of years, and the neglect of means to enrich it, either by supplying manure, or preserving those nutritive properties which it may have occasionally acquired by a temporary rest from its labors, have so far divested it of the essential qualities of a good soil, as to render, in many places, a total abandonment or a new mode of culture absolutely necessary.

I am aware of your surprise, when I caution farmers against too great a use of the plough. That ploughing excites to the immediate fertility of the soil, will not be questioned; but this excitement, like stimulating substances, tends to eventual exhaustion, unless adequate supplies of enriching matter be made. On duly considering the exposure to waste of the animal and vegetable substances, contained in the soil, by frequently stirring and turning it up, you will readily perceive that the plough, in the hands of an unskilful farmer, may become an "instrument of certain and speedy destruction." Our hills and our plains were, at no distant period, covered with a deep, rich, vegetable mould, capable of producing abundant crops, without the aid of manure. What, but the incautious use of the plough, has reduced one to a hungry, gravelly knoll, and the other to nearly a barren waste, approaching fast to absolute sterility. Will not the same causes, which have changed the fruitful fields of some parts of Northern Africa and Asia Minor into barren, uninhabitable sands, produce the same effects in our own country? Let the same course of husbandry be pursued, for two hundred years to come, that has been, for the century past, and it will require but a moderate share of wisdom, to foresee the event. Spring might, indeed, return, and the showers of heaven descend, but no longer to moisten the tender grass, or deck the fields in vernal beauty; for hungry sterility will have rooted up the last blade, and destruction, over the naked land, "expanded her raven wing."

Let the plough, then, the most important of all agricultural instruments, in the hands of a judicious farmer, be used to preserve rather than to destroy the food, which nature has so bountifully provided for the nourishment of plants. Grounds, which are not entirely destitute of vegetable matter, may, by proper management, be made highly productive, without the aid of manure. If the small portion of animal and vegetable substances, which may be found upon our thin, gravelly or sandy soils, be turned under by the plough, and allowed to remain there, secure from the wasting influence of winds and other causes, which excite the evaporation of their volatile properties, there can be no doubt, that by repeating this process for a few years, our poorest lands may become essentially improved, and be made to produce crops, that would richly compensate for the labor bestowed.

The course usually pursued, cannot but be attended with a constant deterioration of the soil. A field of matted and bound out green sward, is broken up, *not turned over*, in the spring. some days before planting, harrowed, then cross ploughed and harrowed again. By this stirring and throwing about the sods, by the plough and harrow, the roots and tops of the grass, and all the light, vegetable mould, are necessarily brought to the surface, and exposed to waste from the operation of sun and winds, and the poorer part of the soil, which should remain at the top to imbibe the enriching properties of the atmosphere, is, by the same cross ploughing and harrowing, thrown back into its cold and lifeless bed. The next season, it is ploughed, harrowed and cross ploughed again, and, if the first year's crop were potatoes, and the owner happen to be "book farmer" enough to know the importance of a rotation of crops, he plants the second year with corn, and in order that evaporation and the winds may have their perfect work, in depriving the ground of the small portion of vegetable mould that remains, it is hauled into heaps about the corn, which, in this way, is left to find its nourishment in the naked valleys between the rows. The third year, the field is ploughed, harrowed, cross ploughed and harrowed again, and sowed down with grain and grass seed, and then, instead of the roller, to break down the lumps, press in the small stones, and set the earth close to the seed, the bush harrow is applied, which finishes the work, by leaving exposed much of the seed, and bringing to the surface many small stones, and the weeds and stubble of the former year's growth. If the field happen to be on a side hill, in addition to the above causes of wasting the better parts of the soil, will be its liability to be washed away by the rains, thereby to enrich his neighbor's grounds, or increase the alluvial possessions of some more fortunate proprietor.

After such a course of husbandry, without having applied more than an ordinary quantity of manure, will any farmer pretend that the stock of vegetable nutriment in his field has been increased? Does not the impoverished condition of his fields rather convince him that at the end of his three years' labor his soil has evidently become poorer and less productive, than it was at the beginning of his course? If, on examination, such should be his convictions, will not the provident farmer be in some measure alarmed at what he must see will be the certain eventual result, and be anxious to apply a remedy?

Upon a field of eight acres, now in my possession, a course similar to the one above described, had been pursued, to my knowledge, for more than forty years. At each successive ploughing, it had been manured, as well as grounds were generally manured by the neighboring farmers. The soil was evidently becoming poorer, and the crops diminishing. In 1822, when I commenced operations upon it, the soil was thin, and the crops of the first three years, it having been cultivated in the usual way, hardly paid the expense of labor and manure, which had been bestowed. Good economy, then, would seem to require, that the field should either be abandoned, or that some mode of culture should be introduced, which should have the effect, either of increasing the crop or lessening the expense.

In May, 1829,[*] the field having laid three years to grass, and the crop of hay so light as to be worth not more than the expense of making, with a view of ascertaining the quantity of vegetable matter upon the surface, I took a single foot square of green sward, and after separating the roots and tops of the grasses from the loam and vegetable mould, it was found on weighing to contain nine ounces of clear, vegetable substance, giving, at that rate, over twelve and a quarter tons to the acre. This convinced me of the importance of taking some course, by which this valuable treasure might be turned to good account. That a great part of this mass of vegetable matter is exposed to useless waste, by the usual mode of ploughing, cross ploughing and harrowing, must be obvious to any one. In order, therefore, to secure this, as well as the light vegetable mould at and near the surface, which is liable to waste from the same causes, I had two acres of the green sward of this field turned over with the plough, as smoothly as possible. After removing the outside furrow slices into the centre of the ploughland, and thereby effecting the double purpose of covering the vacant space in the middle, and preventing ridges at the sides and ends, the field was rolled hard, with a loaded roller, by which the uneven parts of the furrow were pressed down and the whole made smooth. It was then harrowed lengthwise the furrows, with a horse harrow, but so lightly as not to disturb the sod. Twenty cart loads of compost manure, made by mixing two parts of loam or peat mud, with one of stable dung, were then spread upon each acre. It was then harrowed again, as before, and the poorer part of the soil, which had been turned up, and remained upon the surface, was thereby mixed with the compost manure.—Corn was then planted in drills upon the furrow, the rows being at the usual distance and parallel with the furrows. At hoeing time, the surface was stirred by running a light plough between the rows, but not so deep, at this or the subsequent hoeing, as to disturb the sod. What Mr. Lorain calls the "savage practice" of hilling up the corn, was cautiously avoided. As the season advanced, I carefully watched the progress of my cornfield. In the early part of the season, it did not exhibit a very promising appearance; but as soon as the roots had extended into the enriching matter beneath, and began to expand in the decomposing sward, which had now become mellow, and more minutely divided by the fermentation of the confined vegetable substances beneath, than it possibly could have been by plough or hoe, the growth became vigorous, and the crop, in the opinion of those who examined the field not less than seventy bushels of corn to the acre. As soon as the corn was harvested, the stubble was loosened up by running a light horse plough lengthwise, through the rows, the surface then smoothed with a bush harrow, and one bushel of rye, with a sufficient quantity of herd's grass and red top seed, to the acre, was then sowed, the ground again harrowed and rolled. The crop of rye was harvested in July following, and the two acres yielded sixty-nine and a half bushels of excellent grain, and over five tons of straw. The grass seed, sowed with the rye, took well, and the present season I mowed, what those who secured the crop, judged to be two and a half tons of the very best of hay from each acre.[*]

Thus, with one ploughing, with the aid of twenty cart loads of compost manure to the acre, I have obtained two crops of grain and stocked the land down to grass.

The soil upon which this experiment was made was a thin loam upon a gravelly subsoil, and after stating the fact, that it had before, in the usual mode of culture, yielded but about forty bushels of corn to the acre, and less than half that quantity of rye or barley, and, with the exception of the first year after laying down to grass, a crop of hay that but little more than paid the labor of making, the beneficial effects of this mode of ploughing green sward, would seem to be established beyond a doubt. Other parts of the same field have been ploughed and managed in the same way, and promise results equally gratifying. The valuable ends attained by this mode of culture, it will be readily seen, are a saving of more than half the labor, a doubling of the produce, a retaining of much of the enriching matter found upon the surface, which by the usual mode of ploughing and cross ploughing is dissipated and given to the winds; and add to these advantages, what every farmer should consider of most importance, a certain and permanent improvement of the soil.

The light soils of the level and smooth plains which may be found in this vicinity, and in some other parts of the county, are peculiarly well adapted, and would unquestionably be greatly benefited by this mode of culture. An experiment upon one or two acres of this soil, could be made with but little risk to the owner. In the month of August or early in September, if the ground is to be sowed with winter rye, let the sward be turned over with the plough as flat as possible, and after removing the outside furrow slices into the vacant space in the middle of the ploughland, let it be rolled hard and then harrowed lengthwise the furrows, but so light as not to disturb the sward, and then sowed with rye, and herd's grass or red top seed, and after this, harrow and roll again. In the following spring, as early as the season will allow, sow on a liberal supply of clover seed,[*] and roll the land again. This will promote the growth of the rye, by setting the earth close about the roots, and will sufficiently bury the clover seed. In the next August or September, plough again and sow as before, taking care to let the ploughing be a little deeper than at first, so as to bring to the surface a portion of the poorer subsoil. If a top dressing of compost manure[†] can be afforded at each ploughing, the increased produce would, no doubt, be fully sufficient to remunerate the expense; but without any manure, a few years' cultivation of these barren plains, on this plan, must inevitably result in a great improvement of the soil, and a consequent increase of crops. As the experiment cannot be a very hazardous one, on the score of expense, it may be worth trying. The depth of the ploughing must depend on circumstances, such as the natural depth of the soil, and the quantity of manure to be applied. It would be absurd to attempt to prescribe rules on this subject. We might as well give rules for the strength of our teams, or the size of our ploughs, which must depend on the purposes they are intended to subserve.

An important subject of consideration in this system, is the manner in which manure should be applied. If fresh stable dung or long muck, as it is usually called, is to be used, it should be spread upon the surface and turned under the sward. No fears need be entertained that by thus turning it under, the crop will lose the benefit of it. The enriching volatile matters that are thrown off by the fermentation, necessarily ascend and will be lodged in the superincumbent soil, and such parts, as are soluble in water, will never descend below the reach of the penetrating roots of grain or grass.—It is contrary to the principles of sound philosophy, and the known laws of gravitation, that a lighter body should settle beneath and displace one that is heavier. Our manure heaps have, in some instances, been annually deposited in the same spot for half a century, and yet in no instance has the gravelly soil beneath, been found to be enriched to the depth of six inches. An ingenious farmer* of Surry, in the state of Maine, I have been informed, satisfied himself on this subject, by an experiment made by placing a few inches of earth in a vessel, having a hole in the bottom, and then covering the earth with manure and pouring on water until it had exhausted the manure of its enriching matter, and it was found to pass off at the opening in the bottom of the vessel, perfectly filtrated, and cleared of any coloring or substance, which it imbibed in passing through the manure.

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[*] Most of the remarks in the writer's account of his method of ploughing green sward, were published in 1829, in the New England Farmer, in answer to some inquiries on the subject, made through the medium of that paper, over the signature of "Dorchester."—After making the experiment, and writing the account, a gentleman, to whom he showed the field and described the mode of culture, stated that the same method had been pursued by the late Mr. Lorain, of Pennsylvania; and in a few days after, kindly sent him Lorain's excellent treatise upon husbandry. He had not before examined this work. Mr. Lorain recommends turning over the green sward and planting on the furrow, but the following season he ploughed as usual, and, in no instance does he state, that he tried the method of raising two crops of grain and stocking the ground down to grass, without disturbing the sod.

[*] The writer's first experiment in this method of managing sward land was made upon a piece of worn out pasture land in 1826. In the month of August the sward was turned over as flat as the condition of the land would allow. It was then rolled and harrowed, the same way with the furrows, and buckwheat, with herd's grass and red top seed sowed upon the furrow, without the use of any manure. The crop of buckwheat was pretty good. In the spring following, the grass looked so promising it was reserved for mowing, and yielded a very good crop of excellent clean hay, and as pasture land has afforded more than double the feed for cattle that it did before ploughing. The field was harrowed and rolled after sowing.

[*] Southern clover seed will be found to be decidedly preferable to northern, for this purpose, inasmuch as it matures earlier, and will give a greater quantity of vegetable matter to be turned in at the next ploughing. It also makes better fodder for cattle or horses, the stalks being finer than those of northern clover.

[†] Ten cart loads of compost manure will furnish a pretty good top dressing for an acre, and every farmer, who keeps but a small number of cattle and hogs, may at this rate, provide himself with a sufficiency for a number of acres. His stable manure that is inclined to heat, particularly that from the horse stable, should be mixed with at least double the quantity of loam or meadow mud, as fast as it is thrown out, to imbibe its nutritious properties and prevent their escape by fermentation—or it should be thrown directly into the hogsty, where it may be kept in so compact a condition, as to prevent fermentation. Every hog kept by a farmer, should be *required* to prepare ten loads of compost manure in the course of a year, which he will *cheerfully* do, if the owner will provide him with materials, such as loam, peat or swamp mud, leaves from the forests, &c. The vault of the farmer's privy, the waste water from his sink, and even his *hen roost* and dove house, may, with proper management, be made to supply valuable additions to his compost heap.

The fertilizing properties of the manure may be wasted by the improvident hand of man, but it is kindly provided, by an unalterable law of nature, that they never can be lost by causes beyond his control.

Instead of putting on fresh manure from the stable, and ploughing it under the sward, I have thought it more economical to mix it with about twice the quantity of swamp or peat mud, and as soon as the coarse fibre is sufficiently broken down and rotted, to spread it on the inverted sward, and mix it well with the poorer earth that has been turned up.

It may be said that many of our fields are too rough and too full of stones, to admit of their being turned over smooth enough to allow the scythe to follow the plough. A remedy for this difficulty is within the reach of every man of ordinary health. But this, it may be replied, would be attended with expense; and so the farmer will continue from year to year, to work among stones, which have borne the marks of the plough and harrow for half a century, when they might be removed with much less labor than would be saved by adopting the system that I have suggested.

The mistaken notion is too prevalent among farmers, that no experimental operations can be made, no change of system introduced, without burdensome expense. It is true, that the wealth of the opulent has done much, but mental research and a spirit of inquiry, accompanied by the personal inspection and persevering efforts of the practical farmer have done much more, to increase the produce and improve the condition of our farms.

This is most forcibly illustrated by Pliny the elder—

"Furius Cresinus, an emancipated Roman slave, having obtained from his very small estate, much larger crops than his more wealthy neighbors from their vast domains, they become so envious, that they charged him with employing enchantment, to attract into his grounds, the produce of their fields. Having been summoned by Spurius Albinus, and being fearful of condemnation, he introduced into the forum, as the tribes prepared to vote, his robust and well clad family, and his agricultural implements, his heavy mattocks, his ingeniously constructed ploughs, and his well fed oxen, and then exclaimed—behold! Roman citizens, my magic; but I am still unable to show you, or bring into the market place, my *studies*, my constant *vigilance*, my fatiguing labours.—Scarcely had he concluded, when he was absolved by public acclamation."

It is in enterprise, study, unremitting study, vigilance and industry, more than in *money*, that the mystery of great crops and successful husbandry consists.

Is it not too common a practice, among our farmers, to consider that when harvesting is over, the labors of the year have ended? After the six months of seedtime and harvest have passed away, instead of employing himself and his team, in removing the stones from his fields intended for the plough, and clearing the unsightly bogs and bushes from his low meadow grounds, and converting them into verdant lawns and fruitful fields, his carts and other implements of husbandry are laid aside, his oxen tied up to meadow hay, and the owner, whose dread of the expense, sits like an incubus, upon every effort toward improvement, confining his winter's operations to the wood pile and hay mow.

The wholesome admonition of wisdom, may well be addressed to such farmers, "he that will not plough, by reason of the cold, shall beg in harvest, and have nothing."

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* Mr. Jarvis.

(From the Virginian.)

MANAGEMENT OF GULLIES.

Our fields are full of gullies; yet nobody seems to care. 'Tis true, that some few persons attempt to stop them, but it has been very seldom that I have seen one filled, or permanently stopped from washing.

Some persons make a stone wall across a gully, which, although they may stop some earth, yet they answer no good purpose; for in falling over the dams, the water cuts up the earth, and the gully continues to wash, until the earth becomes level with the dam; and although the dams may stand ten or twenty years, yet when they are removed the gully will again wash, as a portion thereof is yet a dead clay.

Again, I have seen stakes and wattlings across gullies, which are no better, if as good, as stone.

By spreading manure and ploughing deep a small gully may be stopped; but a gully of magnitude cannot be stopped without brush. The brush should be large, (in fact a small tree is best in a large gully;) the lap should be turned upward the gully, and the limbs which may be elevated should be cut down. An evergreen of the resinous species is always preferable, as such contains the greatest quantity of nutritive matter, and will the better hold the drifted earth and floating matter; but if such cannot be had, then oak or any other will answer.

After, by this and other means, a gully has been made rich, plough it down, plough it deep and cultivate horizontally, and it is safe; for to keep land from washing it is necessary, and all that is necessary, to spread the proper manures and plough deep, so that rains may sink as fast as they fall.

The great misfortunes attending gullied lands are, 1st, they have not the capacity of clothing themselves, even when out of cultivation, and therefore they wash the deeper at every rain; 2nd, not only so much surface is lost as is contained in the gully, but a turn row must be had on either side; 3d, the dead clay therefrom is deposited in better ground, to its damage; and other misfortunes of minor consideration might be enumerated. Z. Drummond.

January 1, 1831.

Mr. Wm. Chase, of Somerset, has a cow which has given, daily, on an average, during the past season, twenty quarts of milk. Nearly fourteen pounds of butter were made weekly from the cream, for ten weeks.—*N. E. Farmer.*

A Hog was brought last week to the Faneuil Hall market, raised by captain John King of Medford, 30 months old, weighing 726 pounds, said by good judges to excel in smallness of bone and clearness of pork, any ever seen here. It was sold at auction for 7½ cts. per pound, purchased by Mr. Wheeler for his provision store in Green street.—*N. E. Farmer.*

HORTICULTURE.

CULTURE OF THE VINE.

Mr. Smith: *Lin. Bot. Garden, Feb.* 16, 1831.

Dear Sir,—The last year, when engaged in publishing the Treatise on the Vine, I was favored with the annexed highly interesting communication from Dr. J. C. S. Monkur, Corresponding Secretary of the Maryland Society for promoting the Vine culture. Anticipating, at that period, the prompt publication of the second volume of the Treatise, I had determined to incorporate it therewith; but that having been somewhat deferred, I am unwilling that a communication so useful and interesting should be longer withheld from the public, and I therefore, by permission of the writer, transmit it to you for insertion in the columns of the American Farmer.

With the highest respect,
Wm. Robert Prince.

Wm. R. Prince, Esq. *Baltimore, March* 5, 1830.

Dear Sir,—I received, yesterday, your very acceptable favor of the 27th of February. You ask for any information as to the success of the society for promoting the culture of the Vine; the notice of any new seedling vines, and any new discoveries, &c. I enter upon the performance of your request with considerable pleasure; but from the infant state of the society, not a great deal of information can be as yet expected.

For the views and wishes of this association, per mit me to refer you to the address of the committee on behalf of the board of directors, which will be found in the 5th number, 11th vol. of the American Farmer. We obtained an act of incorporation at the session of the Legislature for 1828-'29, under the name of the "*Maryland Society for promoting the culture of the Vine,*" with a capital of $3,000, and the privilege of increasing it to $12,000. The price of each share is fixed at $10; two-thirds have been subscribed for, and the remainder may be disposed of at pleasure. It was in contemplation to have entered immediately upon a systematic course of experimental cultivation, had we been able to procure on advantageous terms a suitable piece of land for the purpose; but not having it in our power to accomplish, in time, this intention, we have postponed until the beginning of the ensuing fall the execution of our plan.

Although, not having collectively achieved any purposes, our individual efforts have, and are now, zealously and incessantly applied to the introduction and cultivation, to the collection and dissemination of all possible information upon this interesting and important subject. Our exertions have not been entirely in vain. There are near the city of Baltimore, three vineyards in progressive operation, of three to ten acres, and smaller ones, which are owned by, and under the superintendence of, the individual members of this society. From information received, others are in a state of preparation and forwardness in many of the counties of this state; and from the increasing importance and attention now bestowing upon the general culture of the vine, we may, in the course of due time, expect much additional and valuable light upon this most pleasing portion of horticulture. Many, both foreign and native seedling vines, are under our individual care; but from the short time of our operations, no determinate and satisfactory results can be given. The native seeds that were politely presented us by John S. Skinner, esq., have been distributed to the different counties in this state, and in some parts of Virginia, and from the intelligence given us, the greater part have succeeded. Of those imported and distributed in 1825, by Mr. Bosley of this city, many have lived, but two only, to our knowledge, have produced fruit. These appear to bear the rigor of our seasons, and will, it is highly probable, become a valuable acquisition to our list of foreign table grapes.

There are other valuable and fine seedling vines from foreign seed in this city; the histories and characters of which we intend to obtain at as early a period as possible for publication. As to discoveries, we have not as yet been fortunate in finding any particularly interesting or valuable; however, as there are a number of experiments now making, it is likely we may be successful in their accomplishment; if so, they will be immediately communicated.

Whilst upon this subject, I shall claim your attention to the history and character of a vine much sought after and greatly admired in this city; which, from its peculiar character, I have not seen described in any work that has come under my notice. It is the *Sultana.* This vine was first brought to Baltimore in 1820 by captain Dickerson, from Smyrna, for Doctor William H. Clendinen of this city. It is extremely luxuriant and vigorous; the wood of last year from four year old vines, measures two inches and a quarter in circumference, somewhat flattened, of a dark straw color, marked with minute dots of a darkish red. The like appearances are also observable upon the sunny side of the fruit on the shouldered portions of the cluster, and upon many of the leaves after their fall in the autumn. The leaves are large, of a lively green hue and delicate texture, simple, with irregularly indented edges; the petiole moderately long and nearly cylindrical. At the fall they assume a pale yellow color, and are frequently speckled with darkish red. The clusters are large, long, shouldered, oftentimes arriving to two pounds and an half, but usually from eight to twelve and sixteen ounces; the berries thick set and covered with a delicate down, *oval,* and of a white color, weighing from ten to *forty* and fifty grains; the skin thin, flesh delicate and melting; the seeds pulpous and transparent; and it may with some propriety be said to be *seedless,* from their very soft condition, as they are not observable in eating; however, if the berries be dried, they are the size and firmness of the seed of the flax, and of a darkish red color.

It ripens with me from the 18th to 25th of August, and will keep well. The conspicuous remains on every berry of the former situation of the pistil, distinguishes it from every other kind that has come to my notice, and with the peculiar delicate and rich appearance of the cluster, we can have no difficulty, after having once seen it, to know it from every other variety of the grape. I have had it in culture for six years, and find it hardy, a moderate bearer, never more than two clusters from one bud, and will not bear close pruning.

Take it upon the whole, I should place it inferior to none in richness and delicacy for the table, excepting those of the Muscat variety. It has been supposed by some that the *Sultana* might, perhaps, be the same as the "*White Corinth,*" described by M. T. De Bernaud, and the "*White seedless Corinth*" in your Treatise on Horticulture. But upon examination, I am persuaded that there exists very distinguishable differences. The cluster of the "*White Corinth*" of Bernaud is middling thick, short, crowded, and thick set with *very small round* berries. This description does not accord with my observations upon the *Sultana.* Its raceme is long, two and three winged; frequently I have had them on the same vine, trained on the arbour principle, five years old, and two from the same bud eight and ten inches long. There is another difference, the berries of the "Corinth" are *very small and round,* whilst those of the *Sultana* are most generally *twenty* to *forty grains* in weight, of an *oval* figure. It is true, there is an agreement in the nature of their seed, both being what are now termed *seedless;* yet their other differences are such as to satisfy me they are grapes of separate varieties. The "*White seedless Corinth*" in your collection, and according to your description, is the *smallest* grapes you have ever seen, white, *round,* seedless; the bunch long, winged, and regularly formed. The same discriminative marks here exist to prove it not to be the Sultana. In the first place, they differ in the form of the berry, and also must differ materially in the size of the fruit. I believe the White Corinth of De Bernaud, and the White seedless Corinth in your collection, to be one and the same variety. I sent you last spring cuttings of the Sultana; and from an inspection and comparison of the wood with that of the "White seedless Corinth," you may be enabled to decide if they be of the same kind of grapes. I would feel indebted to you if you could satisfy me upon the result of your investigation.

Allow me, dear sir, to give you the warmest thanks, in my own name, and that of our society, for your kind offer to present us with vines this year, and with the sincerest esteem and most grateful acknowledgment, I remain, Yours, very respectfully,

John C. S. Monkur, M.D.
C. S Maryland Society, &c.

(From the Pensacola Gazette.)

LIVE OAK PLANTATIONS.

We perceive from several paragraphs in distant papers, the impression is pretty general, that the Live Oak on the plantation opposite this city, is reared from the *acorn.* This, however, is not the fact. The trees are the natural product of the soil, and the planting of acorns is wholly unnecessary. The labor expended on them has been little else than removing other trees, selecting, pruning, and thinning live oaks, and in making avenues to prevent damage from fires.

This species of oak is abundant along the sound of St. Rosa, and Choctawhatchie bay, but is generally so thickly set as to prevent a rapid growth; while the thickets themselves invite destructive fires at intervals of a few years. The report of the surveyors of Live Oak show, that several millions of these trees exist along the waters of the bay and sound, which came within their instructions, while countless numbers may be found less than six inches in diameter.

Great efforts have been made to throw ridicule over the experiments made at this plantation; but if it be not wholly abandoned to the fires, we hazard nothing in the prediction, that in ten years from this date government will be fully convinced of its value, and extend the improvements on a large scale. It has been the misfortune of all valuable improvements to encounter at first serious opposition. When it was proposed in England to charter a company to construct the first turnpike road from London to the interior, Parliament was assailed by numerous remonstrances, of whole classes, who could see nothing but mischief in the measure. We remember how much opposition and ridicule the great New York Canal encountered, and even *respectable* talents were employed to write it down. At a more recent date, rail-roads have come in for their due share of opposition and discouragement. Yet these improvements, once so much abused, have now conquered prejudice itself, and fairly won public favor. Thus it will be with the Live Oak plantations. It requires nothing but observation and candor to convince any man, that Live Oak wants but space and immunity from fire to ensure a rapid growth, and the greatest perfection.

"Aye," says the objector, "but the land is an arid sand bank, that cannot sprout peas." Pray, sir, is there not such a thing as extravagance in description, and may not the soil thus described be fairly classed with a better order, or at least a great part of it? Is it not known to you, that a sandy soil is the most favorable to the production of this timber. That when found on rich river bottoms, which is "few and far between," it is there a less valuable timber than that growing on a sandy soil, and near the salt water? Is it not possible, that nature knows quite as well where to place her timber to the best advantage of each kind, as a theorist without observation?

A sandy soil is the most favorable to the growth of the Live Oak; let a few facts be adduced to prove this assertion.

Where can be shown a more sandy soil than at Barancas and its neighborhood, and where is seen finer live oak trees, both of the larger and smaller classes? Where can a more sandy plain be seen than the Miller tract at Florida town, and where are finer Live Oak trees of equal age? This tract was grubbed and planted with corn in 1820 by Major George Bowie, and since then a growth of Live Oak has sprung up there, and many of the trees are already over a foot in diameter. The same rapid growth of this timber may be seen at Dr. Shackleford's place, about a mile north of Pensacola. It is a general fact in this neighborhood, that old fields, (pine land all,) are the favorite spots for Live Oak. In fine, where is a more sandy coast generally, than that between Apalachicola and Mobile? and yet in no part of the country can larger or finer Live Oak be found than on this coast. Let this timber be carefully preserved—let the millions of young trees have space to grow, and protection from fires, and our navy yard will ever find an ample supply on her own inland waters;—yea, a ship load may be spared annually for a more northern depot.

(From the Genesee Farmer.)

SWEET POTATO.

The *Sweet Potato,* or Carolina Potato, as often called, may, and will, become an article of profit, in the region of the Genesee Farmer. It is cultivated with very little more trouble than the common patoto, in my garden, and gives nearly as good a yield. Perhaps you do cultivate it already—if you do not, try it. I plant a few, say a dozen well grown potatoes, early in April, and from them get plants enough for 50 to 100 hills, enough for my family. Dig a hole in the soil of the garden two feet deep, and three or four feet square, or round. Fill this with fresh horse dung, *from out of doors,* well wetted, and cover it three inches with soil.

When warmed, by heat or fermentation, plant the potatoes two inches under the surface, which I leave open to the weather. The growth will then be stimulated by the internal heat, and vegetated by the external, so as to give you plants for transplanting, by the time the season is sufficiently advanced. I make the hills, before transplanting, 12 to 18 inches high, 3 or 4 feet apart each way. When the plants have 3 or 4 or 6 leaves, nip off the root adhering to the potato, with the thumb and finger nail, having thousands of fibrous roots, and set these, 1, 2, or 3 in each hill. They may be thus set any time of the day, and will require no watering. Keep them clear of weeds. If more plants are wanted, replace the potato, which will soon throw out a new set of plants.

The white are the earliest, and the best for our climate; then the yellow, and the red. A light, dry, sandy soil is considered best for them, but they grow well in a light mould, or loam, if dry and warm. I have no doubt they will become a profitable crop, even for feeding stock, in your country. Mine were planted, last year, in the bed, early in April; in the hills, by the middle of May; and ripened in August, and to middle of September. The largest were from 8 to 12 inches in length, 6 to 8 in circumference, and very little, if any, inferior, in richness, to the best from the southern states. H. G. S.

Jan 29, 1831.

(From the Genesee Farmer.)

HORTICULTURAL EXPERIMENT.

Messrs. Editors.—I wish to communicate to the public, through your paper, the result of an Horticultural experiment, which I trust may be new to some of your readers. In the spring of 1829, I found in my fruit garden that the mice had girdled two of my young plum trees, taking off a ring of bark near the ground about four or five inches wide. A gentleman of my acquaintance observed to me, that the trees might be saved by splicing in pieces of bark, so as to connect the roots with the tops, and gave me directions for doing it. Being unwilling to lose my trees, I proceeded by taking some pieces of limbs of the same tree, corresponding in length to the width from which the bark had been removed, and having split them, I fitted them to the bodies, (which were about an inch and a half in diameter,) by flattening them, and cutting square in at the ends, so as to make good joints where the bark was sound—tied them fast with strings, and hilled the dirt over them. The result was, the pieces united at both ends, and the trees have continued to grow, as though no accident had befallen them, and now bid fair to produce fruit the next season. I have since tried the experiment upon an apple tree with equal success. As similar accidents happen to trees, from mice, rabbits, calves, and sheep, I can recommend the process of splicing, as by it, trees so injured, may be saved. S. Clark.

Greece, Feb. 1, 1831.

RURAL ECONOMY.

(From the Genesee Farmer.)

THE BEE.

Messrs. Editors,—I have observed that recently much has been published in various Horticultural Journals, on the habits of the honey bee. A knowledge of their history, economy, and mode of working, is extremely interesting, and the subject derives additional interest from the following fact, which came to me from an authentic source a short time since; and having never seen it in print, I send the statement for publication in your interesting *Genesee Farmer*, which, by the by, should be in the hands of every practical farmer in the *Genesee country*, who, from the hints and experience of others, would save more than ten times the cost of the paper in the course of the year. But to the subject:

A few years since, a farmer removed from this county to one of the northern counties of the state of Ohio; his remove was in the winter, and he took, with his other moveables, a hive of bees; and at the end of his journey he located in an old log house, and, for the want of a better place, he put his swarm of bees into the garret, where they remained till spring.

Among the many cares of a remove into the wilderness, he forgot his bees, and neglected to place them out of doors, as is the custom; but with the return of spring, and the opening of the wild flowers of the wilderness, they did not forget their duty, but "gathered honey every day from every opening flower," until the hive was full to overflowing. They found abundant passage between the logs of the house. When the hive was full, instead of swarming and going off, they merely removed a few feet from the old hive, attached themselves to a log in the same room, and went to work; others attached themselves to the outside of the hive, and continued their operations in open view in this manner for several years. When the family wanted honey, they went into the room and broke off what comb they required without molestation. Having abundant room in the garret, they never left it in swarms. It is probable that the room was nearly dark, but of this I am not informed. From this circumstance the inhabitants, when they build their houses, finish off a small tight room, in the garret, or other convenient part of the house, exclusively for the bees, with timbers or braces to which they can attach the comb, having a tight door to the room to exclude mice, &c., and I understand they are not molested by the bee moth or miller. I could much enlarge upon this subject, but time does not permit, and it is quite sufficient for a practical man to improve the hint. I am, respectfully, yours, O. W.

REQUISITES.

There are five requisites for a professed drunkard:—A face of brass—nerves of steel—lungs of leather—heart of stone, and an incombustible liver.

MISCELLANEOUS.

CUBA TOBACCO—FLORIDA LAND.

Mr. Smith. *Baltimore Post Office, Feb.* 18, 1831.

Sir,—As some evidence of the lively interest which I shall never cease to feel in the prosperity of American husbandry and horticulture, and of the first regular Journal established for their benefit; I send you for preservation in the American Farmer, the accompanying communication from Mr. Shaler, our very enlightened and public spirited consul at Havana, and another interesting one from J. S. Smith, Esq. Mr. Shaler is, you know, the author of the valuable notes on Algiers, which are said to have constituted for the French, one of their most efficient guides on their late successful expedition against that strong hold of piratical outlaws. In these, which are two cases of thousands of similar character which fell under my notice whilst conducting the American Farmer, you behold an evidence of the spirit which may be diffused and the estimable exchanges of sentiment and of productions which may be effected by the influence of a solitary journal, which it was then, conducted with ordinary talents, yet with steadiness and zeal for the improvement of one great branch of national industry.

Here you see two gentlemen collecting simultaneously, and without any inducement, but the hope of benefiting American agriculture and horticulture, valuable and rare productions growing in regions many thousand miles distant from each other. Were it practicable to make a list of the various seeds, vegetables, fruits, fowls, animals, machines, specimens of new manufactures, &c. which have been sent or brought from various parts of the world to the office of the American Farmer, during the last ten years, and through it interchanged and disseminated, the *aggregate* would create surprise with those who may have noticed only a few of the cases; whilst the display of liberality it would afford, would be highly creditable to our merchants, sea captains, consuls and officers of the navy—by the by, there are few better tests of an enlightened mind and a patriotic spirit, in the best sense of the word, than services of this description.

I happen to be familiar with the experiments which have been made in this latitude to propagate the *genuine Havana sweet scented tobacco*, used in the manufacture of the best cigars. The first year's produce from imported seed, approaches in a high degree the imported article, and if those who, in the country, find pleasure in the agreeable meditations which a fine cigar is said to inspire;* would take the pains to procure the seed *annually* from Havana, and would keep their cigars not less than a year in advance of their consumption, I am well persuaded that the country might well save the amount expended in the importation of that commodity.

The tobacco produced *here* the *second* year, from seed of plants of the first year's growth, retains in a considerable measure the peculiar flavour of the original plant; but the original Cuba stock is scarcely to be recognised in the third generation. Hence all attempts to perpetuate its fine essence or flavour by continued propagation in the portions of America where that weed has hitherto constituted a staple, have proved abortive, and the want of facilities or of systematic measures for procuring the seed annually from Havana, has heretofore left in entire dependence on that island, all those who prefer the genuine to the spurious article. In this country it is common to attempt to pass off the vilest trash under the guise of a sweet scented *wrapper;* but the taste must be vitiated and vulgar, that does not quickly discern the difference. As well might you endeavor to substitute a newly manufactured, for a natural gentleman, by dressing him up in a costly exterior. It is the *soul and essence; the aromatic flavour and spiritual emanations* that constitute excellence in both cases, and neither can ingenuity *counterfeit*, impertinence assume, nor *money buy them,* where nature denies the raw material.

There is perhaps no plant more affected in its qualities by the *nature of the soil* from which it springs than tobacco. No mode of culture, nor any process of after management has been found to obviate this order of nature. In this view of the subject the acquisition of Florida is peculiarly interesting, as it is said to have supplied a soil perfectly well adapted to the production of sweet scented tobacco of the very highest quality, and thus to have removed all necessity for looking abroad hereafter for that very expensive luxury. This fact, asserted by Williams in his Memoir on that land of flowers, has been recently confirmed by the high authority of Governor Duvall, and affords ground for anticipating in the profit of that culture a strong attraction for the investment of capital in Florida, and a striking object of practicable national economy.

Here, sir, permit me to make known, as interesting to your readers in Florida, that the illustrious and much beloved Lafayette has sent me, and requested me to execute, an unqualified power of attorney to sell at public or private sale one half of his Florida lands. I have no doubt that, in distinguishing me by this mark of his confidence and regard, his leading object was to relieve the good people of Florida, and its Capital, Tallahassee, into which his land runs, from all apprehensions of the check which might ensue to the growth of that country, by having in the heart of it, a body of 24,000 acres of unoccupied land. I understand much of it to be exceedingly well adapted to the growth of cotton and sugar cane and of tobacco; but I will give you a more particular description of it when better informed. In the meantime my plan will be, as at present advised, to sell alternate sections, on *long credits,* to *practical settlers,* as far as may be, demanding only a small portion to be paid in cash.

Very respectfully, your obedient servant.

J. S. Skinner.

Dear Sir: *Havana, 24th Jan.* 1831.

I presume that the letter I wrote you previous to my departure from New York must have miscarried; but I recollected your wish to have some Tobacco seed, and have given in charge of the captain of the brig Mentor for your port, two sealed bottles, containing seed of the best *bulto a' ajo,* which is the finest quality of tobacco known in this island. Its genuineness may be relied on, as it was furnished me by the Director of the Botanic Garden here, who vouches for it. He is the editor of the little periodical which I left at your office, and which you then seemed to think worth exchanging your journal for. If he charges me any thing for this seed, which I presume he will not, I will inform you what it is. In the meantime I remain, with respect and esteem, dear sir,

Your most obedient servant,

To John S Skinner, Esq., Wm. Shaler.

Postmaster, Baltimore.

St. Louis, Missouri, *27th Dec.* 1830.

Dear Sir,—During my travels of nine years in the country on the sources of the Missouri river, and in the territory of Mexico and the United States, West of the Rocky mountains, and on the coast of the Pacific, I have, at different times, gathered the seeds of such shrubs and plants as appeared peculiar to that country. Some of these may claim consideration from their inherent qualities, and others may find a place in the gardens of the curious, from the fact, that they are natives of the most distant and wild territory of our republic. It may, perhaps, be a pleasure to a lady of the Atlantic, to gather cherries or currants from a shrub whose parent stock is now growing by the bank of a stream that flows unmarked by the eye of civilized man to the calm Pacific. A few samples I enclose to you, in the hope that you will make such a disposition of them, that I may, in some future time, see them blooming in the gardens of the Atlantic. The different parcels are numbered, and of each I give a short description.

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* I once heard the great orator Pinkney, the glory of the American bar, say, that he could never *think* so deeply, or with so much consciousness of studying with effect, as when smoking a fine cigar; yet smoking was, I believe, by no means a *practice* with him at that time. It acts as a stimulus at the time, and, like all other stimuli, is, no doubt, followed by proportionate relaxation. It is not my purpose to justify, far less to commend the practice, but were I to inveigh against it, I might be called a *Parson*—as the sign posts are in England, for a reason that—I leave you to guess; and which, though it may be a sound one there, I do not aver to be so here.

No. 1. *Large Black Gooseberry*, found on the head of the Platte, in wet ground, in the vicinity of springs that burst from the sides of the mountains where the soil is rich. They grow well in the shade. Ripen there about the first of September.—*Entirely smooth.*

No. 2. The *Serice Berry*. Gathered on an eastern spur of the Rocky mountains, northern declivity, and clay soil; ripens about the last of August. A fine fruit—the shrub about 5 or 6 feet high.—*Size of the Fox grape.*

No. 3. *Choke Cherries*, of a superior kind; they are found in all parts of the mountains, and in the rich soil of the valleys of creeks and rivers. The shrub is from four to seven feet high. In the middle of August, when ripe, the berry is a most beautiful purple, and about the size of the Fox grape.—*Yields abundantly.*

No. 4. *Yellow Currant;* found on the sources of the Missouri and Platte, on the eastern declivity of the mountains; also in the vicinity of springs and rivers where the soil is good. The shrub larger than the common currant; ripe about the 15th August. They are larger than any currant cultivated in the United States.—*An acquisition to the housewife.*

No. 5. The *Black Currant;* the fruit and shrub much like the yellow, with the exception of the colour; found in the Black Hills.

No. 6. The *Buffalo Berry;* found in the Black Hills, in gravelly soil, along the water courses. The berry, when ripe, about the middle of August, is a beautiful red; the shrub about five or six feet high; is of that kind which is supposed would make a good hedge.

No. 7. The *Scented Grass Seed.* This grass is found on the west side of the Rocky mountains, on the Columbia river; grows in damp ground; should be cut before ripe, when it is peculiarly fragrant.

No. 8. *Leaves of the Scented Wood;* grow on the western coast south of the mouth of the Columbia. The tree has a resemblance to the apple tree; the largest about eighteen inches in diameter. They may, perhaps, be restored to their original fragrance. I am not certain that the wood is fragrant, but know the bark and leaves to be so; the tree is an evergreen. I procured seeds but lost them.

I must request that you will do me the favor to acknowledge the receipt of this package, directing to this place.

If, in my future journeys to the west, I could make any collections that would be interesting, I shall do it with great pleasure Your most obedient,

To J. S. Skinner, Esq. J. S. Smith.

Scaly Bulbs may be increased by the leaves, viz. by pulling a full grown leaf off with the scale attached, and planting it in a pot of sandy loam, when after a short time, the leaf throws down the sap which should have gone to the parent bulb, and this forms a callosity of granulous matter, which soon takes the form of a young bulb or bulbs.

THE FARMER.

Baltimoge, Friday, Feb. 25, 1831.

Lafayette's Florida Lands.—In a communication from Mr. Skinner, our Postmaster, the founder, and for many years editor of this paper, to be found on another page of this number, it is incidentally stated that General Lafayette has sent him a power of attorney, with a request that he would dispose of one half of his Florida lands. These lands consist of a township of about 24,000 acres, selected as the best public lands at the disposal of the government. Who might not be proud of so distinguished a proof of the confidence of one whose very name is a watchword for the friends of liberty in all parts of the world? A sight of this power of attorney showed us for the first time, that we recollect to have seen them, all the names of the old "patriarch of liberty," to wit: Marie Joseph Paul Roch Yves Gilbert Dumottier Lafayette; but who needs more than *one*, when that one has become synonymous with patriotism and virtue? As the world has seen but one Washington, so can it boast but one Lafayette. Others of their name have, and do, and others again may enjoy high reputation, but *theirs* must ever shine above all others, in original and unreflected brilliancy.

It will be seen by an extract which we are permitted to make from the power of attorney, that, under all circumstances, the old General is proud of his title of "*Major General of the late Revolutionary Army of the United States.*"

"Know all men by these presents, that I, Marie Joseph Paul Roch Yves Gilbert Dumottier Lafayette, a Major General of the late Revolutionary Army of the United States, now Commander-in-Chief of the National Guards of France, have made, ordained, authorized, constituted and appointed, and by these presents do make, ordain, authorize, constitute and appoint, John S. Skinner, of Baltimore, in the State of Maryland, my true and lawful attorney, for me and in my name, and for my use and on my behalf, to sell, either by public auction or private contract, as my attorney shall see best, such parts, tracts, or portion of my Florida lands, not exceeding in the whole one half of the township granted to me by the Congress of the United States, for the best price or prices that can be had or gotten for the same: and, also, for me, and in my name and on my behalf, to enter into any contract or contracts for the same, with any person or persons who shall agree to be the purchaser or purchasers thereof; and generally to do, execute, and perform, all and every matter and thing which shall be requisite and necessary to be done for the sale of the said portion, tracts, or parts, not exceeding in the whole the one half of the said township, and confirming the same to the purchaser or purchasers thereof, as fully and effectually, to all intents and purposes, as if I were personally present and did the same. And generally for me, and in my name, and for my use and on my behalf," &c. &c. &c.

Agricultural Improvement.—We take pleasure in calling the attention of agriculturists to the communication of R. K. Meade, Esq. of Virginia, on the subject of a State Board of Agriculture, proposed by us in a recent number of the Farmer. We are pleased to find that a gentleman so well qualified to judge of the merits of the proposition, approves of the general plan; not because it originated with us, for we should have been equally pleased, had it been the suggestion of any.body else; but because it affords strong evidence that some such plan will ultimately be adopted. At present the plan suggested seems better adapted to the object in view than any other we have been made acquainted with. Still, as was observed before, we are ready to hear any objection that can be urged against it, and to adopt any other that may be suggested which shall appear more eligible. And the Editor begs leave here to remark, that he will publish with equal readiness communications for or against it; and he earnestly solicits all who object to it, in whole or in part, to favour him with their strictures, —assuring them, that it will give him even more pleasure to publish their objections to his opinions than it would the commendations of those who approve of them; because it will afford him an opportunity to retract his, or endeavour to convince them of their error.

The Editor was not aware that his plan had a precedent so illustrious as a suggestion of Washington's, and he takes the occasion to ask his friend, Mr. Meade, for a reference to the document, if there be any published, that he may lose no time in laying it before the readers of the Farmer, as he cannot permit himself to doubt of its infinite superiority to his own.

The editor is thankful for the hints contained in Mr. Meade's communication, of the advantages of the plan, which were passed over by him. Indeed, a mere outline was all that was intended, and the details reserved for future discussion and the suggestion of friends. One advantage of a board of agriculture in every county, pointed out by Mr. Meade, we have no doubt would save to farmers more than their portion of the expense would come to. We allude to the prevention of the sale of worthless machinery. This would be of real practical importance. The county board would be able to make another great saving, by the purchase of the county rights of all such machinery as should be found useful, for the free use of all the farmers of the county. This board would also qualify itself, or some one of its members, which could be done in a few hours, for the analyzation of soils, the discovery of lime, and the detection of deleterious minerals; by which, the proper mode of improving sterile or worn-out lands might be suggested. However this may be viewed, it would be a real benefit to every county in the union. Those who have travelled much must have observed the great want of chemical knowledge, as applicable to agriculture, in our country. We have heard complaints of a want of lime for agricultural purposes, made by persons, when we have found abundance of lime-stone within a mile of their farms. We have also heard persons complain, that lime did not act beneficially on their lands; others, that plaster of Paris was of no benefit; when a few moments time and three cents expense would have saved them the trouble and expense of applying lime or plaster, by showing that the soil already contained lime or plaster enough. The little knowledge of agricultural chemistry required for all such purposes, would soon be disseminated by the members of the county board, and, in a very short time, every farmer would be in possession of it. A few words will illustrate the importance of this knowledge. One farmer, without a knowledge of chemistry, will go to considerable expense and labour, in burning and applying lime to his land; and after a year or two of trial, finds that it does not act beneficially;—his land is in a worse state than before, and all his time and money, thus expended, are lost. Another takes a small handful of the soil from the field to be improved, pours on a gill of diluted muriatic acid, (equal parts of spirits of salt and water.) and by the effervescence of the mixture finds that the soil contains lime enough already. Thus, he who is ignorant of this simple item of chemical knowledge, expends hundreds of hardly earned dollars and years of precious time, in finding out, what his better informed neighbour discovers, without expense, in a few minutes. The proper application of lime is only one item of the advantages of a knowledge of chemistry. The proper manure, or corrective for any soil, may be ascertained by it with the same facility. This, therefore, would form a most important part of the proper duties of the county boards, until such a system of education shall be generally adopted as will place the *science* of agriculture at least upon an equal footing with other professions in our schools. We are fully aware, that our suggestion of experimental farms, agricultural professorships, &c. are subjects for ridicule to those politicians, who deem the public purse and the public crib exclusively appropriated to their accommodation;—they will laugh down if they can, and frown down if they must, all measures not intended for the inflation of their balloons: but they must have observed a rapid progress in the march of mind towards an invertion of the present state of things, and fore seen, that the time is at hand, when none shall be allowed to feed from the public crib but those who contribute to its replenishment. For ourselves, we care not who laughs at these things; they shall not laugh us from an unceasing, untiring support of them to their perfect accomplishment, should life and health permit.

Silk Worm Eggs.—The editor of the American Farmer is desirous of obtaining a few thousand silk worm eggs for distribution—many applications having been made to him for them. Those having any to spare, will do a service to the cause of silk culture by sending them to the Farmer office.

Prices Current in Boston, Feb. 18.

Apples, new, bbl. 1.75 a 2.00 *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 8.50 a 8.75; cargo No. 1, 7.25 a 7.75; No. 2, 6.50 a 6.75. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 6.75 a 6.87; Genesee, 6.75 a 6.87; Rye, best, —— a ——. *Grain*, Corn, bu. .70 a 72; Rye, .75 a .80; Barley .60 a .65; Oats 42 a 46. *Hogs-Lard*, 1st sort new, lb. 9 00 a 10.00; *Pork*, clear, bbl. 17 a 20; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Wool*, Merino, full blood, washed, .60 a 62; do. do unwashed, .— a .—. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .52 *a* .58, do. half blood, .48 *a* .50; do. quarter, 40 *a* 42. Native, washed .40 a .42; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 45 *a* 50.

Prices Current in New York, Feb. 19.

Beeswax, yellow 19 a 21. *Cotton*, New Orleans .10 a .11; Upland, .8½ a .10; Alabama, .9½ a 11. *Cotton Bagging*, Hemp, yd. 18 a 20, Flax 12½ a 16; *Flax*, American, 7 a 8.——*Flaxseed*. 7 bush. clean .13.75 a .—— *Flour*, N. York, bbl. 6.87 a ——; Canal .6.62 a 6.87; Balt. Hwd. st. —— a 6 62—; Rh'd. city mills 6.50 a —— country, 6.50 a ——; Alexand'a, 6.37 a 6.50; Fredericksburg 6.37 a ——; Petersg. 6.25 a 6.37; Rye Flour, 4.00 a 4.12; Indian Meal. per bbl. 3.87½ a 4.00; per hhd. —— a 14.00. *Grain*, Wheat, North, 1.40 a 1.45; Vir. 1.35 a ——; Rye, North, 75 a 76; Corn, Yel. Nor. .— a 75; Barley 78 a 79; Oats, South and North, .40 a .44; Peas, white, dry, 7 bu. 5. Beans, 7 bu. 7 00 a 8 00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.25; cargo 4.50 a 5.00; Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 8½. a .9½; Pork, mess bbl. 13 00 a 14.25; prime 9.75 a 10.37½.

AGRICULTURAL CHEMISTRY.

A few copies Sir Humphrey Davie's Agricultural Chemistry, just received, and for sale at the office of the American Farmer.

SEEDS.

The Subscriber has in Store, for sale, Orchard Grass, Herds and Lucerne Seeds, and 50 bushels of Clover Seed, of superior quality—and also a general assortment of the Messrs. *Landreth's* Garden Seeds, at wholesale and retail; all of last year's growth.

Likewise,—A general assortment of Agricultural Implements, as usual. He has for sale, the Messrs. Robbins' celebrated Corn Planter, or Drill, for drilling all Seeds that are capable of being drilled. Price. $10—including three Drills, or Droppers.

J. S. EASTMAN.

N. B. Fruit and Ornamental Trees, Bulbous Roots, Flowers, &c. will be furnished from the Messrs. Landreth's Nursery, to order. Orders for Trees should be given early. J. S. E.

SILK WORM EGGS WANTED.

Twenty-five cents a thousand will be given for a few thousand Silk Worm Eggs, of either the light yellow, orange, or white cocoon kind. Apply at the American Farmer office.

PRATT'S PATENT STUMP EXTRACTOR.

The subscriber having become the proprietor of the right to this machine, proposes to sell rights for Towns, Counties or States, on the most liberal terms. The utility and power of the Extractor is no longer matter of speculation and doubt. Its power, durability and usefulness have been fully tested in various parts of this state; and its almost wonder working power on the line of the Chemung canal during the past summer, has procured for it the highest commendation and praise, from men eminently qualified to judge of its importance. The letter which will be found below from Mr. Hutchinson the engineer, employed by the state to superintend the construction of the Chemung Canal, goes far to prove its usefulness in the construction of roads and canals. The machine is simple in its structure, and is easily conveyed from farm to farm by means of ordinary wagon wheels with axletrees, the forward one having a pole or tongue similar to that of an ox cart, the machine forms the body and running-gears. When employed in pulling stumps the wheels are removed and the machine fastened to one stump while it extracts another, the stump extracted, nothing more is necessary than to face the machine to the next and remove the chain for pulling; so on till you sweep a circle of eight rods. The cost of a machine exclusive of chain and rope is 115 dollars, the cost of chain and rope is about 110 dollars; the wire of which the chain is made is 1½ inch through, the greater part of it is in bars with a hook at one end, at the other a loop. The machine is worked by the power of one yoke of oxen, and is easily moved by them from stump to stump, its bottom being similar to that of a stone-boat or sled. The weight of the machine exclusive of chain and rope is about 15 cwt. Any person purchasing the right for a state will be furnished with a machine deliverable to order at any port on the seaboard. Application for rights, or information in relation to the machine, post paid, will be promptly attended to, JOHN R. DRAKE.

Owego, Tioga County, N. Y.

P. S. E. Meacham of this place is engaged in the construction of stump machines, and at all times will be prompt in attendance to orders.

Elmira, August 9th, 1830.

Dear Sir,—In reply to your request that I would inform you with what success "Pratt's Patent Stump Extractor" operated in performing the business of grubbing on the Chemung Canal, I cheerfully state that the two machines you have sent on to the line of the canal, have been thoroughly tested and have greatly exceeded my expectations. Two experiments may be selected, which I think shows conclusively the value of the machine; the one conducted by yourself in which sixty eight stumps were extracted from 2 o'clock till sunset, and the other last week on section No. 11, when two hundred and thirty were taken out in one day. My employment as an engineer, has afforded me frequent opportunities of witnessing the operation and power of various machines that have been invented and applied to grubbing and excavation; but I have never seen any machinery so well adapted to the purposes for which it is intended as yours. The item of grubbing, has heretofore been an item of considerable amount in the construction of roads and canals. By the use of your machine this item will be reduced I should judge fifty per cent. I consider the "Extractor" a superior machine as well on account of its great power and simplicity of construction, as on account of the facility with which it may be used on sideling and uneven, as well as on level ground. Beside the obvious advantages to be derived from this improvement in removing impediments to agriculture, I am satisfied it will prove to a very great extent a "labor saving machine" in prosecution of "internal improvements."

Respectfully yours, HOLMES HUTCHINSON, Engineer.

John R. Drake, Owego.
Feb. 25.

BALTIMORE PRICES CURRENT.

Baltimore Market.—There is no change in any of our staple articles, nor is there much business doing. The navigation will probably be open in a few days, when we shall be able to give something like a satisfactory account of the market. Howard street flour has been sold at $5.81¼ from stores, and the last transactions we have heard of were at $5.68¾ from wagons. Red and white wheat readily commands our quotations as it comes in by wagons. Corn retails at 70 a 73 cents. Beef continues without change and a good supply in market.

Tobacco.—Seconds. as in quality, 3.50 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00 a 5.00.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. Cuba 14.00 a 25.00—St. Domingo, 11.00 a 17.00. The inspections of the week comprise 2 hhds. Maryland.

Flour—best white wheat family, $6 50 *a* 7.00—super. Howard-street 5.75 *a* 5.81¼; city mills, 5.75 a ——; Susquehanna, — *a* —; Corn Meal. bbl. 2.25 Grain; red wheat, 1.20 *a* ——; white do. 1.25 *a* 1.30 Corn, white, — *a* —— yellow — *a* ——new white — *a* .——yellow — *a* ——Rye, .— *a* .——Oats, 30 *a* 31, Beans, 90 *a* 1.00-Peas, 50 *a* 60—Clover seed 5.25 *a* 5.75 Timothy, 2.00 *a* 2.50—Orchard Grass, 1.25 *a* 1.50—Herd's, — *a* 1.00—Lucerne 30 *a* 37½ lb —Barley, 62½ Flaxseed —— *a* 1.30-Cotton Va. 9½ *a* 10½-Lou. 11½ *a* 12½ —Alab. 9 *a* .11—Tenn. 9 *a* .10— -N. Car. .9 *a* .10½— Upland 10 *a* 11—Whiskey, hhds 1st p 27½ *a* ——; in bbls 29½ *a* 30—Wool, common, unwashed, lb. 15 *a* .16—— washed, .18 *a* .20-crossed, .20 *a* .22-three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $220 *a* —; Country. dew-rotted, 5. *a* .6c.-lb. water-rotted, .6 *a* 8c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.00 *a* 4.25—Mackerel, No. 1, 6.37½, *a* 6.50—No. 2, 5.87½ *a* 6.00—No 3 3.43¾ *a* 3.50; Bacon, hams Balt. cured 10c.—Feathers, 34 *a* —-Plaster Paris, cargo price per ton, 4.25 *a* 4.31¼, ground, 1.37½ *a* —-bbl.—Iron, gray pig for foundries per ton 30.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00.—Prime Beef on the hoof, 5.00 *a* 6 00.

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EDITED BY GIDEON B. SMITH.

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AGRICULTURE.

DESTRUCTION OF GARLIC.

Mr Smith: *Baltimore, Feb.* 1831.

As garlic *sprouts* in the fall as well as in the spring, the following system of cultivation, as sanctioned by experience, is recommended with a view to its destruction.

1st. Plough the ground in the fall preparatory to the planting of corn. Plough and harrow the same ground in the spring before the planting of the corn.

2d. In the following spring plough and harrow the same ground, and then sow it with oats, thick enough to produce as good a crop as the soil is capable of yielding.

3d. Turn under the oat stubble as soon as possible after harvest, and in the fall plough and harrow the field again, and then sow it with wheat.

4th. Upon this wheat, sow, at the usual time, clover-seed *very thick*.

5th. In the fall thereafter, plough under the second crop of clover, and sow the field with wheat.

Under this system of rotation the soil may not be improved or even preserved, but by a great abundance of manure. And if this cannot be amply furnished from the resources of the farm, it should be procured elsewhere. By a careful observation, however, as to the non-appearance of garlic, it may be ascertained when this system, so exhausting as to the soil, may be intermitted, and when it may be altogether discontinued.

The course of cultivation here recommended admits not, at any period, the rest of an old field. Instead of this miserable practice, it every fifth year, gives the refreshing repose afforded by a luxuriant growth of red clover, and enriches the proprietor by a valuable crop every year in each of his fields.

The experience of several years on a farm where no manure has been purchased, has suggested these remarks; and it may be well to observe, that there has been a gradual improvement in all the crops every year up to this time. Agricola.

[The following article on the same subject as the above, is copied from the volume of "Transactions of the Philosophical Society of America," with the loan of which the Editor has been favoured by a respected gentleman of this city.]

A letter from Mr. Henry Hollingsworth, *to the American Philosophical Society, held at Philadelphia, &c. Read before the Society,* 17*th of February,* 1769.

Gentlemen:

The laudable design with which you seem actuated to promote the good of your country, and the earnest desire you have expressed in the public papers, to be informed of whatever may tend to that purpose, induce me to lay before you such experiments as I have made and found effectual to destroy *the wild garlic,* with which the country is in many places infected, and which is very pernicious to the grain. If what I offer, shall meet with your approbation, and be judged worthy the attention of the public, you are at liberty to communicate it in such a way as you shall think most proper. For my own part I shall think myself happy if my experience may, by your means, be made useful to my country.

In 1753, I fallowed and sowed with wheat, a field of about 50 acres, the greatest part of which was very full of garlic; I fallowed in May, stirred in August, and sowed in September. In April 1754, I perceived the wheat much choaked with garlic, and at harvest found in many parts of the field almost every tenth head was garlic, which rendered the wheat unfit for use, until by immersing it in tubs of water the garlic (which floats) was separated from it. But though the wheat, if carefully dried, receives little injury from this immersion, yet the trouble attending it is so great, as to discourage farmers from raising large crops. In April 1755, I planted the same field with Indian corn, and had a good crop. In April 1756, I sowed the same field with oats, in August I ploughed down the oat stubble; and in September sowed a crop of wheat. In April 1757, I was agreeably surprized at seeing but very little garlic, and that small and dwindling; and at harvest there was scarce a head to be found, except along the side of the fences. The success of this culture, which was merely accidental, and done without any view of destroying the garlic, induced me to try the following experiment.

In April 1758, having fixed on a field for my next fall crop, which had produced Indian corn the year before, and was equally full of garlic with that I mentioned before, I sowed part of it with oats, the other part I fallowed in June, and stirred in August, at which time I ploughed in the oat stubble, as before, and sowed the whole in September, causing the same ridge to pass through part of the stubble and part of the fallowed land. In April 1759, there was a very perceivable difference. The stubble part was green with wheat, but the fallowed part was of a bluish colour, occasioned by the quantity of garlic, and at harvest was full of large heads, while in the stubble part there was not one to be found.

Since that I have continued to sow oats in the garlicky lands designed for wheat, and find I have succeeded so well in destroying the garlic, that after three years culture in that way, the lands may be fallowed and sown with wheat in the usual manner, without any danger from that noxious plant.

Several of my neighbours have pursued the same method and find it answers. As the advantage of a crop of oats is more than equal to the difference between fallow and stubble ground wheat (where the land is tolerably good,) I would recommend it to all who are troubled with garlic to make a trial. The only disadvantage will be the impoverishing their lands, which, if they have manure, may be easily remedied. At the same time, I would observe, that the stubble which is ploughed down serves for a manure, and nearly repairs the waste occasioned by the crop of oats.

If it be asked why oats destroy garlic, I must confess I am unable to resolve the question. Perhaps ploughing the land in the month of April, when the greatest part of the oil of the root or clove is in the shoot, and turning it under at that time, destroys the roots more effectually than at any other season, and the mowing the oats, which is the method pursued by us, destroys the heads that would otherwise come to seed later in the year. Possibly the same tillage in the same season without sowing oats, might answer the end proposed. But having never made the experiment I can say nothing certain on that head.

I am, &c. H. Hollingsworth.

Head of Elk, Nov. 30, 1768.

MR. MEADE'S SHEEP.

The following extracts from letters, with the remarks in reply thereto, have been furnished for publication by R. K. Meade, Esq. to whom the letters were addressed. Although written in reply to correspondents in the lower country, it is presumed the remarks will be interesting and useful to our valley farmers, and that they will receive their candid consideration.—*Winchester Republican.*

TO R. K. MEADE, ESQ.

Amelia County, Va.

Dear Sir,—The letter covering the samples of wool was received, for which I thank you, and since then the half-dozen sheep have arrived safe and sound. My lot is composed of the choice fine wool ewe and the long wool ram. I should have gone to your country myself, but could not leave home, and should have been pleased at an opportunity of knowing something of the management of these useful animals. We are no farmers in this country, nor flock masters, but rather flock starvers.—Negroes, overseers and tobacco, have ruined our country. I am, as I think, determined to change my system, but don't expect to succeed as you do in stock. Yours is a different climate and soil for grass. I am much pleased with the sheep, and pleased at the prospect of having it in my power to clothe ourselves at home. I am tired of domestics, and sick of tariff duties. We have the names of Randolph and Giles to teach us how to dislike restrictions. I am at a loss to know whether the cross from the above description of sheep will be a good one, the wool being the principal object. I have to day got some orchard grass seed, and don't so much as know how nor when to sow it. I have some herds grass, and a prospect for more; but am of opinion that it is not a choice grass for sheep—some small patches of clover. Any information you would at a leisure hour give in relation to the management of a flock, say 50 odd, and the cross alluded to above, will be thankfully received and regarded by,

Yours, &c.

Extract from the letter of another gentleman of the same county.

I am much pleased to find you have so successfully turned your attention to the improvement of stock. It is a branch of agriculture in which we of the tobacco-growing country are wofully deficient. Indeed the character of our soil and climate are both unfavorable to grass, and therefore to stock.—But efforts are now making to introduce the best breed of sheep and horned cattle amongst us, and I hope you will be able to assist us in those efforts, &c.

REPLY.

"I am at a loss to know whether the cross from the above description of sheep will be a good one." It is replied that experience, reason, common sense theory, and all visible circumstances, combine in proving the superior importance of crosses,—not merely from their greater facility and economy, or security and despatch, but from their fitness, in the nature of things, to propagate a stock more congenial to the soil and climate, in associating their nature with those already acclimated, and improving them in degrees proportioned to the qualities of the unimproved animal, and to the adaptedness of the soil and climate. It suits better to pronounce this from experience, than to attempt to reason upon it, however substantial might be the arguments in its favor, or agreeable to theorize in details made familiar by observation, because demonstrations on the soil and in the farm yard are worth a world of theory.

It will reasonably appear to farmers that a cross from full-blooded stock on their unimproved, will be more likely to meet such difficulties and embarrassments as indicate the golden medium to be generally the best. A race of sheep would thereby be produced, and a gradual improvement made, enabling the breeder by observation to ascertain how far he shall proceed in an in-and-in system to be adapted to his views or particular location: for it might be proper, from a scrutiny into such circumstances, that selections from the third, fourth or fifth generation, would be suited as best in nature to the ultimate perfection of that kind of animal in certain soils and climates.

It must be readily perceived, by the intelligent and inquiring, that these observations are made not only for practical use, but for the investigations of science and the spread of truth and accuracy in the art of breeding, and not for the selfish purposes of breeders, whose interest it is to maintain the importance of transplanting full-blooded stock, without mixture, to wherever fortune may carry them.

Under this view of the subject, how much more important for a farmer to improve his native stock, by a Merino, Southdown, Bakewell, or any other improved breed adapted to his peculiar circumstances, than attempt the exclusive breeding of any individual race of sheep. There are exceptions to this general rule; and it will also be well for those who can afford it to rear, on a limited scale, the full-blooded stock—highly important, when their new home would form no obstacles to their accustomed health and improvement—since it would be a means of accelerating crosses, superadded to the advantage of arriving sooner at a sufficient number of the full-blooded stock. In remarking on the greater general importance of crossing, which may be extended to all kinds of stock, and its improved operation by judicious selections, it is not intended in the least to convey an idea that full-blooded stock should not be kept pure, or that an in-and-in system should be departed from as long as there is any visible improvement or the prospect of it, or as long as degeneracy can be avoided.

As a more special reply to the query of the enterprising gentleman to whose lot fell the pair of sheep, youngest and most improved, it may be said, in reference to them, that if there is any advantage in at least attentive breeding and progressive improvement for some generations back, the individual, his section of country, and nature of the soil, must either be wofully negligent or radically defective, if they fail to improve the advantage to be derived from animals calculated to supply their tables with abundance of delicate mutton, and their persons with the most comfortable and comely, if not the richest and most costly wear. But if there is a general resolution to pursue the change of system determined on by this individual, (most wisely it is apprehended,) we would fain hope their exertions would be crowned with success in the substantial improvement of their soil, and the consequent increase and regeneration of their flocks, being infidel to the belief that any portion of Virginia (save a few burning sands) has been, in the providence of God, abandoned to a course of cultivation deteriorating from the moment the axe is laid to the tree.

Grass being the only sure foundation for good stock, merits, not only for the inquiries made, but for its intrinsic importance, some consideration;—and at a moment of leisure, the peculiar value of the species alluded to, combined with clover, will be carefully examined and attested by the experience of farmers.

The orchard grass seed should be sowed at the rate of one bushel per acre, on lands not exceeding 10 feet, 5 feet at a cast, mixed with ashes or any fine earth, to bring it to the ground quickly, and insure its more regular spread. The most favorable time of sowing is with the wheat and rye in the fall and harrowed in, or the same process in the early spring with oats and barley, but the least certain.

With respect to the herds grass, or any other grasses, they may be mixed without much regard to their number or kind, in order to the forming of a firm sod, or lead to the discovery of such as are most likely to be permanently useful.

We should be happy to learn from our lowland brethren whether they have ever given to grass and sheep as fair an experiment as to corn and tobacco? If the subjects of experiment should be worn out tobacco fields, no wonder that disappointment and disgust should so often ensue, however certain that patience and perseverance would finally reclaim even them. Let the foundation of improvement be also laid in unexhausted soil; and then if fair and full experiments should fail, man would have done his part, putting forth his energies next to discover how near he may approach that arrangement, which, in the kindness and wisdom of Providence, has been made for his prosperity and happiness.

In conclusion, let it be recommended, with all due respect to the opinions and experience of those whose cultivation differs so materially from others, that it is a subject worthy of their best intelligence to investigate what changes may reasonably be adopted to better their condition, and whether it is not of the greatest practical importance, in agreeing on the theory, to introduce a variety of grasses, and ascertain what kind of animals will best suit their soil and climate,—as it is believed that where some would thrive, others would perish. If the study of human nature is the most important of all sciences, second unto it will be a better knowledge of our domestic animals in connection with the vegetable creation.

(From the New England Farmer.)

GRASSES.

Letter from the Hon. John Lowell, to the Trustees of the Massachusetts Society for the promotion of Agriculture.

Will you permit an associate, who has for twenty-five years been connected with you, but who from ill health has been compelled to withdraw himself from your society and labors, to make a few remarks on a subject of great interest to the cause of agriculture? The topic which I purpose to discuss, is the cultivation of the various kinds of vegetable productions which we comprise under the name of grasses. I understand by this term, all those vegetables, which are consumed by domestic animals, as food in pastures, or as hay.

There certainly is no subject more important to those parts of our country which depend on raising, and fatting domestic animals of the useful classes, the ox, the horse, and the sheep.

I know very well, that I shall be met at the outset, by the reply of *practical* farmers, that we are not to be instructed on this subject. We know better than any theoretical farmer can know, what is best suited to our soils—we have herds-grass, and clover, (white and red,) and red top, and we want no more. They are better for us than any of your outlandish grasses. Wait, gentlemen, I reply; there is one yankee grass unknown to *many* of you, but well known to the owner of the extensive meadows on the Charles river, the fowl meadow grass. If this truly yankee grass could be translated to all the meadow bottoms, the naturally moist, cold, half peaty lands of New England, their produce would be at least doubled. It is difficult to procure its seed. It is not for sale in sufficient quantities; whether from its ripening with difficulty or from whatever causes, it is not always a certain producer; but still its value is beyond all calculation. Low meadows are chiefly furnished with the different species of carex, a coarse, sharp, worthless grass, on which no animals but those which are nearly famished will feed, and on which those who do feed constantly decline. We have then one species of grass *not usually* cultivated, which is of inestimable value. It is no idle speculation, but sober fact, and unless a defender of ignorance will maintain, that the fowl meadow grass can only flourish in the Dedham meadows, our agriculture has much to gain by the active, earnest, assiduous propagation of this grass.

I have cited this solitary case, merely to gain a patient hearing. Of our three favorite grasses, the herds-grass or timothy is in very bad repute in Europe. They consider it a very coarse and not a very nutritious grass. It is not extensively cultivated in any part of Europe on this account.

I am, however, disposed to admit, that it is with us highly valuable—but its value is limited by the following conditions: on low lands, or highly cultivated grounds, it yields a great and a steady crop. It is less liable to lodge than any other grass. It falls in with our too careless habits of cultivation, because it may be cut in the month of June, or it will stand till August, at which last period it will be of about as much value as straw, though even then it will have a bright, and beautiful appearance and be saleable. It is admirably adapted to inn-holders, and livery stable keepers, because it wears well. The youngest horses will find their powers of mastication sufficiently taxed in consuming a rack full of it in a night, and it will take nearly *the whole night* to effect this. In dry land, it soon runs out, and in all grounds it gives very little after crop. I believe all these propositions to be true. The red clover is never used in Europe, as we commonly use it. It is almost always employed as a green crop—as a succession crop to be fed down by various animals, and then turned under as a preparation for wheat. Indeed, as a hay crop it must be admitted to be of very small value. As we seldom use it in New England, as it is used in Europe and in the southern states, I must consider it as a very inferior grass, for us. Its duration being so short, (for it only lives two years in any case) is a very serious objection to it. We are often deceived in this respect, because its heads ripen in succession, and new plants are always springing up in our grounds, and we do not perceive what is certainly true, that no clover plant ever reaches its third year.

As to the red top, by which I understand the *poa pratensis*, most common English grass of our meadows, our pastures and our lawns, it is unquestionably the best gift of Providence, to pasturing or grazing countries. It is perennial. It has creeping roots. It will come in spite of all your efforts, and if it were not for its natural enemy, the couch grass, it would in ten years overcome all other grasses. It makes admirable hay—the very best of hay for all sorts of cattle. But its defects are, that its crop is light at all times, and as its creeping roots soon fill the ground, the sod becomes bound, and requires breaking up every few years.

I have thus given a true character of all our favorite grasses—not from theory but from twenty-five years' close experience and observation.

If there were no other grasses than these in existence, or none better, we ought to be thankful for what we have, and endeavor to make the most of them. But is this so? No, it is not so. And we are the only people who make any pretensions to knowledge, who confine themselves to a catalogue or list of grasses so small, and of so doubtful comparative value.

Let us first examine the practice of the first agricultural nation of Europe—the nation which produces the greatest amount of food, for its extent of soil, in all Europe. (We know too little of China to say whether its productions do or do not exceed those of Great Britain.) In laying down a meadow, as they term it, which does not mean as with us, wet land, but mowing land, it is their practice to sow from six to ten different varieties of grass. And this practice is founded on sound philosophy, which means no more than the result of intelligent experience. It is founded on this well known fact, that every species of soil, and more especially rich soils, will give nourishment to many varieties of plants, each acquiring a different species of food, the whole aggregate of whose productions will be much greater than if the same soil was sown with one species of plants only. This will not appear extraordinary to those who have been accustomed to the extensive cultivation of exotic plants—while one class of plants, the Cactus tribe for example, will flourish best in sand, and gravel, and brick dust—another in pure peat—another in pure sand; others require the richest composts, pure humus, or the finest vegetable soil. If you give to the plants which prefer a poor silicious soil, or peat, rich earth, they at once lose their health, and become rotten at the root and perish. This is in exact conformity to that wise, intelligent and beneficent system by which the whole universe is governed. Without entering into the inexplicable laws, which govern the vegetable kingdom, as well as the animal, we may content ourselves with the *fact;* and the only question with which we need trouble ourselves is, whether the *fact be so or not.* It is certain that the experience of the English farmer has been in favor of this great mixture of seeds; I can only add in favor of this theoretical, if it may be so called, *doctrine,* this *fact,* that a rich natural meadow, which has never been broken up for forty-five years, and as I believe, for 200 years, I have counted fifteen species of natural grasses, all flourishing without apparent interference, and none appearing to disturb the growth, or even luxuriance of others.

Having made these preliminary remarks, I shall say something of such grasses as are cultivated in Europe, and of which I have made a fair trial. I beg it to be fully understood, that I speak only of my own experiments, though I shall take notice briefly of the experiments of others, which have come to my knowledge.

The orchard grass, *dactylis glomerata*, is one of the grasses frequently sown in Great Britain, though I cannot find that it is used on the continent of Europe. It has been growing into favor in this country, and gradually taking the place of herds-grass, or timothy. It has been successfully cultivated by my intelligent friend, John Prince, Esq. of Roxbury. In consequence of his recommendation, I have tried it for several years past, and am unable to speak of it with such unqualified praise as has been bestowed upon it by others. Its advantages are, that it is a very early grass, affording an early pasturage, and an early crop. It bears repeated cuttings, and affords a great quantity of after feed. Its disadvantages are, that unless its seed is most abundantly sown, it is too apt to come up thin, and to remain in detached bunches; as grass it is eaten greedily, but when made into hay, it is not a favourite food for either the horse or cow—at least such has been *my own* experience. I account for this from this fact, which I have never failed to remark; the upper parts of the leaves are apt to turn brown or perish before the flower stalk is fit to cut. From this cause the flavor of the hay is not only not aromatic, but it is to my senses positively disagreeable. In drying, it loses more in weight than any hay with which I am acquainted.

The tall meadow oat grass (*avena etatior,*) has proved, under my cultivation, a most valuable grass, and has fully supported the high character given of it by E. Phinney, Esq. of Charlestown and Lexington. It is a very early, and a very tall grass, yielding a good burden. It will start as frequently and as rapidly after cutting as the orchard grass, and makes a sweeter hay. It has the advantage of being a perennial and enduring grass. On my first experiment, 20 years since, it lasted seven years without the necessity of renewal.

The sainfoin, a favorite grass of France, has never succeeded with me. I have made three trials of it, but in every case it perished the first winter, to such an extent as to render its culture impracticable. I have not heard of its success in any part of the northern states.

The lucerne grass I have now cultivated for eight years last past; having a full conviction that it is superior to the red clover, and that on soils adapted to it, it must and will supersede it almost entirely, except where the clover is intended merely as a preparation for wheat. I shall make some further remarks upon it, giving the results of my last year's experience, which both for their extent and success, far exceeded those of any former year.

My first piece, (four years from the seed,) I reserved for soiling. It was cut down four times, and pastured the fifth. The first cutting was on the tenth of May.

The second piece was sown with red top, and was cut and made into hay three times, and depastured on the fourth. There was good feed of a fifth crop on Christmas day.

The third piece was sown with tall meadow oat grass, in the proportion of one bushel of oat grass to six pounds of lucerne.

The first crop was very great; it was difficult to decide in this first crop which excelled, the lucerne or the oat-grass. But in every succeeding crop, the lucerne predominated to so great a degree, that it seemed to be the only crop. This was owing to the greater breadth of its leaves. I never cut it till it flowered. I made four crops last summer of excellent hay from it, amounting in all to six tons and a half per acre—and after that it furnished a rich supply of after feed. This crop was seen and admired by a great number of intelligent farmers.

Having been convinced that it was suited to my soil, I last year laid down an acre and a quarter for a pasture, being satisfied that it is admirably adapted for this purpose. I laid it down with barley, but it grew so fast that I was obliged to cut the barley stalks very short, or else I should not have been able to thresh it, so thick and succulent was the lucerne. I cut over this field once, and then depastured it.

I mention this fact as a remarkable one, because the French writers speak of it as a *very rare* occurrence, even in *their* climate, that it will bear the scythe the first year.

At the South and in New York, the lucerne has done as well as with me. Yet many persons have not succeeded with it here. It will not endure wet or black soils. The land in which I have raised it, is a warm soil—the surface good, but thin on a gravelly bottom. It has stood drought better than any other grass. I have always used gypsum, and perhaps owe my success in part to that valuable stimulant. I have employed two bushels to the acre. If my repeated experiments shall result in its successful culture, I shall be happy; and if not, I shall have the consolation of well meant endeavours in a good cause.

Respectfully yours, J. LOWELL.

THE SUGAR CROP.

Fifty-five sugar mills which have ground cane in this parish, since the first of November last, of which two were moved by water and four by steam, have produced 2718 hhds. of sugar, which ought to make about 3,000,000 pounds of sugar, and a proportional quantity of molasses. The best cane has not yielded more than five hundred pounds per arpent. There is but one of these sugar mills which has been established more than three years.

It is estimated that the parish of St. Mary will make about five thousand hogsheads, and Lafayette about five hundred. The cane in this last mentioned parish and in part of the parish of St. Mary, was not better than it was in this parish. But in the lower part of the parish of St. Mary, from the plantation of Mr. Agricole Fuselier down to the end of the parish the crops were far superior. The cane yielded in that part of the parish from one to three thousand pounds per arpent.

Nevertheless, the crops were no where perfect, in consequence of the frosts of the 21st and 22nd December, which entirely destroyed all the cane then standing. Several planters who could not begin early, have lost a great part of their cane, and some of them their entire crop.

It it is therefore proved by experience, that the culture of sugar cane cannot be sustained in this state, without the protection which it has thus far received. The repeal then of the duty upon foreign sugars will be no less than the sacrifice of cane growing in Louisiana to encourage it abroad. And the foreign planter having no longer to encounter the competition of Louisiana, will not fail to indemnify himself for the duties which he now pays. The advocates of repeal allege that it will increase their foreign commerce; but they undoubtedly forget that they will sacrifice unnecessarily a branch of the revenue of the State, and the largest and most essential part of the commerce between the other states and Louisiana, which will always be more advantageous than foreign commerce, independent of many other considerations of policy and patriotism.

[*Lou. Gaz.*

It is stated in Watson's Annals of Philadelphia, that the original cultivation of broom corn in this country, originated with Dr. Franklin; the Doctor accidentally saw an imported whisk of corn in the possession of a lady in Philadelphia, and while examining it as an article of curiosity, saw a seed which he secured and planted, and thus originated the abundant and lucrative crops which are so beautifully spread over our meadows in the season of vegetable life.—*Poulson.*

HORTICULTURE.

(From the "Transactions of the Philosophical Society of America," published in 1771.)

FOREIGN SEEDS AND PLANTS.

Directions for bringing over Seeds and Plants from distant Countries, in a state of Vegetation.

Many valuable trees and plants, yet unknown to us, grow in distant countries, particularly in the northern provinces of China, about the latitude of 40 degrees, which would thrive well in North America, more especially in these middle colonies, which lie about the same latitude. But as the distance is great, the manner of preserving the seeds properly, so as to keep them in a state of vegetation, is an affair of considerable consequence and some difficulty. The following hints are therefore offered for that purpose:

In the first place, it ought to be carefully attended to, that the seeds should be perfectly ripe when they are gathered; and they should be gathered, if possible, in dry weather; afterwards they should be spread thin on paper or matts, in a dry, airy room, but not in sunshine. The time necessary for this operation will vary according to the heat of the climate, or season of the year, from a fortnight to a month, or perhaps two may be necessary; the hotter the season, the less time will suffice. This is to carry off their superfluous moisture, which if confined would immediately turn to mouldiness, and end in rottenness.

As there are two methods that have succeeded, and put us in possession of several young plants of the true tea-tree of China, I shall mention them both, in order to assist the collector in bringing home the seeds of many valuable plants.

The first is by covering them with bees-wax in the manner explained in Phil. Transact. vol. lviii. p. 75.

It principally consists in choosing only such seeds as are perfectly sound and ripe. To prove this, we must cut open some of them to judge what situation the rest may be in, taking care to lay aside any that are outwardly defective, or marked with the wounds of insects. When a proper choice of them is made, they should be wiped extremely clean, to prevent any dirt or moisture being inclosed; each seed then should be rolled up carefully in a coat of soft bees-wax half an inch thick: the deep yellow English bees-wax is the best. When you have covered the number you intend to inclose, pour some of this bees-wax melted into a chip-box of six or seven inches long, four broad, and three deep, till it is above half full; and just before it begins to harden, while it is yet fluid, put in the seeds you have rolled up in rows till the box is near full, then pour over them some more wax while it is just fluid, taking care when it is cold to stop all the cracks or chinks that may have proceeded from the shrinking of the wax, with some very soft wax, then put on the cover of the box, and keep it in as cool and airy a place as you can.

The method of inclosing tea-seeds singly in wax, and bringing them over in that state, has been practised for some time; but few have succeeded, owing to the thinness of the coat of wax, or putting paper first round them, or inclosing them too moist.

To this I must add a method that promises success for bringing over plants from the West Indies, and the southern parts of North America, particularly West Florida, the voyage from hence being longer than from the West Indies, and more attention is required to keep the plants in health, than from any other parts of our North American settlements: but as there is a good deal of difference in the climates of these places, it will be necessary to observe, that plants from the West Indies should be put on board in the latter end of spring, so as to arrive here in warm weather, otherwise they will be destroyed by the cold of this latitude; and the ever-greens, which are the most curious from West Florida, must be sent in the winter months, while their juices are inactive, so as to arrive here before the heats come on. If the plants sent from these countries were planted in pots or boxes, and kept there a year, they might be brought over with very little hazard; or even if they were first transplanted from the woods into a garden, till they had formed roots, they might be sent with much more safety.

The size of the boxes that will be most convenient for stowing them on board merchant ships, where there is very little room to spare, should be three feet long, fifteen inches broad, and from eighteen inches to two feet deep, according to the size of the young trees; but the smallest will be most likely to succeed, provided they are well rooted. There must be a narrow ledge nailed all round the inside of the box, within six inches of the bottom, to fasten laths or packthread to form a kind of lattice-work, by which the plants may be the better secured in their places. If the plants are packed up just before the ship sails, it will be so much the better.

When they are dug up, care must be taken to preserve as much earth as can be about their roots; and if it should fall off, it must be supplied with more earth, so as to form a ball about the roots of each plant, which must be surrounded with wet moss, and carefully tied about with packthread, to keep the earth about the roots moist: perhaps it may be necessary to inclose the moss with some paper or broad leaves (as the palmetto) that the packthread may bind the moss the closer. Loamy earth will continue moist the longest. There must be three inches deep of wet moss put into the bottom of the box, and the young trees placed in rows upright close to each other, stuffing wet moss in the vacancies between them, and on the surface; over this palmetto leaves, if to be had, should be put to keep in the moisture, and over them the laths are to be fastened cross and cross to the ledges or packthreads to be laced to and fro, to keep the whole steady and tight. The lid of the box should be either nailed down close, or may have hinges and a padlock to secure it from being opened, as may be found necessary, with proper directions marked on it to keep the lid uppermost. There must be two handles fixed, one at each end, by which means there will be less danger of disturbing the plants. Near the upper part of the ends of the box, there must be several holes bored to give air: or in making the box there may be a narrow vacancy left between the boards of one third of an inch wide, near the top, to let out the foul air; and perhaps it may be necessary to nail along the upper edge of these openings, list, or slips of sail-cloth, to hang over them, to secure the plants from any spray of the sea; and at the same time it will not prevent the air from passing through. Boxes with plants packed in this manner, must be placed where there is free air, that is, out of the way of the foul air of the ship's hold.

The following method of preserving seeds from turning rancid from their long confinement, and the great heat of the climates which they must necessarily pass through from China, was communicated to me some years ago by the celebrated Professor Linnæus, of Upsal, in Sweden. He advises, that each sort of seed should be put up in separate papers, with fine sand among them, to absorb any moisture (dried, loamy, or soapy earth may be tried:) these papers, he says, should be packed close in cylindrical glass, or earthen vessels, and the mouths covered over with a bladder, or leather tied fast round the rims: he then directs that these vessels, with the seeds in them, should be put into other vessels, which should be so large, that the inner vessel may be covered on all sides, for the space of two inches, with the following mixture of salts. Half common culinary salt; the other half to consist of two parts of saltpetre, and one part of sal-ammoniac, both reduced to a powder, and all thoroughly mixed together, to be placed about the inner vessel, rather moist than dry. This he calls a refrigeratory; and says it will keep the seeds cool, and hinder putrefaction. Perhaps if small tight boxes, or casks or bottles of seeds were inclosed in casks full of salts, it might be of the same use, provided the salts do not get at the seeds; and as sal-ammoniac may not be easily met with, half common salt, and the other half saltpetre, or common salt alone, might answer the same end. But it would be very necessary to try both methods, to know whether the latter would answer the purpose of the former, as it would be attended with much less trouble, and might prove a useful method to our seedsmen, in sending seeds from hence to those warm climates.

The smallest seeds being very liable to lose their vegetative power by long voyages through warm climates, it may be worth while to try the following experiment upon such kinds as we know for certain are sound. Dip some square pieces of cotton cloth in melted wax, and while it is soft and almost cold, strew the surface of each piece over with each sort of small seed, then roll them up tight, and inclose each roll in some soft bees wax, wrapping up each of them in a piece of paper, with the name of the seed on it, these may be either surrounded as before with salts, or packed without the salts in a box, as is most convenient.

There are many seeds, which we receive both from the West Indies and the southern parts of our North American colonies, as South Carolina, Georgia, &c. which the gardeners find very difficult to raise here, unless the following method is pursued. Divide a box, according to your quantity and sorts of seeds, into several square petitions; then mix the seeds with loamy earth and cut moss, and put each sort into its separate cell, filling it up to the top: the earth and moss must be rather inclining to dry than wet; then nail the lid down very close on your box, keeping it in an airy situation. If the voyage does not exceed two months, they will arrive in good order in the spring; and, though many of them may begin to germinate, yet, if they are sown directly, they will succeed much better than those that are brought over in papers, as is well known to our most curious gardeners. Seeds of the nutmeg tree from Tobago, the cinnamon tree, the cacoa or chocolate nut, and Avocado pear, must be brought in this manner. Seeds of all the sorts of magnolias, stewartias, chionanthus, and many others from South Carolina, will succeed better this way, than any other method we yet know.

The seeds of many of the small succulent fruits may be brought to England from very distant parts, by pressing them together, squeezing out their watery juices, and drying them in small cakes gradually, that they may become hard; they may be then wrapt up in white writing paper, not spongy, as this is apt to attract and retain moisture; but I believe it will be found, that a covering of wax will be better than one of paper.

The Alpine strawberry was first sent to England in a letter from Turin to Henry Baker, Esq. F.R.S. by pressing the pulp with the seeds thin upon paper, and letting it dry before they were inclosed. The paper mulberry from China was brought hither about the year 1754, much in the same manner.

These hints may prompt us to try the larger succulent fruits; for instance, the mangoes, lechees, and others of this kind: if their fleshy part, when they are very ripe, was brought to the consistence of raisins or dried figs, it would keep their kernels plump, and in this state they might be better preserved in wax, than by any other method yet known.

It may be interesting to some of our readers to be informed that the *Pecane Nut Hickory*, (*Juglans Olivæ formis*) has been successfully cultivated in Philadelphia, and is now bearing perfect fruit. This exceedingly beautiful tree was raised from a nut, planted by a gentleman of our city, about fifteen years since.—*Poulson.*

(From the N. C. Farmers and Miners' Journal.)

ANNUAL INCREASE OF SEED.

The fertility of nature in the production of seed is almost incredible, and is a circumstance well calculated to display the immense quantity of life that may spring from a solitary embryo. In no instance is the unbounded liberality of nature more manifestly exhibited, and cannot fail in exciting our admiration, and satisfactorily explaining that extensive diffusion of vegetables over the face of the earth. To elucidate this fact more clearly, I shall here very briefly introduce a few of those plants which stand foremost in point of fecundity; in the mean time, availing myself of the observations of an eminent naturalist on this subject. A single stalk of Indian corn (Zea Maize) has been known to yield in one summer, under favorable circumstances, 2000 grains; though frequently producing from 800 to 1200 grains. In the same period, a plant of Elecampane (*Inula helenium*) produced 3000 seeds. The common Sunflower (Helianthus annuus) generally produces about 4000 seeds. The usual produce of the White Poppy (Papaver somniferum) is 32,000 seeds. Each capsule of the Vanilla contains from 10,000 to 15,000 seeds. Mr. Ray, an English botanist of considerable eminence, who flourished near the close of the seventeenth century, informs us, from actual experiments made by himself, that 1012 tobacco seeds are equal in weight to *one grain*, and that the whole number of seeds in a luxuriant stalk of tobacco is 360,000. The same learned naturalist estimated the annual produce of a single stalk of Spleen-wort (Asplenium) to be upwards of one million of seed! It has also been ascertained that a single Thistle seed will produce at the first crop 24,000 seeds; and consequently, allowing each embryo to be evolved into active life, five hundred and seventy-six millions at the second crop!! It may here be proper to remark, that to each seed of the Thistle, as well as to the seeds of many of the compound flowers, is attached a feathery or silklike crown, by the French called aigrette, admirably adapted to its dispersion by every passing breeze, and cause it to "wing its way" not only to remote fields, but even to distant climes. It was no doubt in allusion to this astonishing fertility of the Thistle, and remarkable facility of migration in its seed, that led Virgil to exclaim, the "Thistle becomes dreadful in the corn-fields." Through a period of long, dark and almost undefined ages, we contemplate with no small degree of astonishment the multiplied existence of millions of beings that people this "huge rotundity we tread upon;" but when we advert to the vegetable kingdom, and there trace the rapid ratio of increase which nature resorts to, in maturing and propagating seeds for a future progeny, we are almost bewildered at the contrast, and are at once prepared to account for that wide dissemination of plants over our forests and fields; thus increasing the cares of the farmer, and constituting a pest which he finds difficult to exterminate. A Backwoodsman Botanist.

ORANGE TREES.

Sprigs of orange trees in blossom, and wreaths of the same, are sold in the markets at Paris throughout the year (the trees being forced in the winter season,) to be worn at marriages; the bride being crowned with a wreath, and the bouquets being distributed amongst her attendants. In the evening the wreath is divided into small pieces, and eagerly sought for by the young female friends of the bride, who believe it to possess the same qualities as are attributed to pieces of the bride-cake in England. We have seen sprigs of orange trees worn at marriages in this country; and we rejoice to observe the striking manner in which the customs of two nations, so formed to be united as England and France, are beginning to amalgamate.—*J. L. Cobham.*

Planting Fruit Trees on Hill Sides.

Dotart first observed that trees pushed their branches in a direction parallel to the surface of the earth. If a tree stands on a steep, it pushes its branches both towards the hill, and towards the declivity, but on both sides it preserves its branches parallel to the surface. As there is an attraction between the upper surface of the leaves and light, I am also persuaded (though not equally certain from experiment) that there is an attraction of the same nature between the under surface of leaves and the surface of the earth.—This I consider as the cause of the phenomenon.

I had long observed that the most fruitful orchards, and the most fruitful trees are those planted on a declivity, and the steeper it is, though not a precipice, the more fertile they will prove.

It is well known that the spreading of trees always renders them fruitful. On a plain, however, they incline to shoot upwards; and, therefore, art is called in and applied by skilful gardeners, in various ways to check their perpendicular and promote their lateral growth. But this point, which can only be gained on a plain by art, is obtained on a declivity by nature: there a tree loses its tendency to shoot upwards, and in order to preserve its branches parallel with the surface, is constrained to push them in a lateral direction. Hence an important rule in the choice of orchards and gardens.

Hints for the Gardener.

In Pennsylvania vegetation generally commences at a mean temperature between 55° and 65°, if the wind should be *east* of the meridian, but if *west*, between 55° and 75°. In either case an uninterrupted continuance of not less than 14 days will be necessary to produce a visible effect. If *southerly* winds prevail, the time will be shorter. The above temperature often takes place in March, by which both gardeners and farmers are deceived in raising vegetables; for, by long observation, it is known that a settled state of the weather does not take place in Pennsylvania, before the middle of April. Such seeds and plants as have been put in the ground at an earlier period, and have assumed a prosperous appearance, are, by piercing winds and late frosts, nipped in the bud and checked in their growth for a week or two. Experience therefore teaches us that gardens made after the middle of April, are most productive.

The difference of temperature between 55° and 75° often takes place in the course of 24 hours, owing to the force and direction of the wind.—*Lancaster Ex.*

Peculiar Cultivation of Potatoes.

A French soldier placed half a dozen of potatoes at the bottom of a cask, upon a layer of sand and fresh earth, three or four inches thick; when the stalks had risen a few inches, he bent them down, and covered them four or five inches deep with the same mixture. He continued this operation till the cask was full. Six or seven months after, upon emptying the vessel, (which stood in a court yard,) he found that the half dozen potatoes had produced an enormous quantity of new ones, from the portions of the mother stems which had been successively laid down and covered.—*Journal des Connais. Usuells,* 1829.

Parmentier's Garden.

We were yesterday presented, by Mad. Parmentier, (widow of the late worthy proprietor of the Horticultural Garden at Brooklyn) with a most beautiful bouquet of flowers. This establishment continues to be conducted in the same manner as it formerly was, and the same exertions are used to merit the continuance of public patronage—to which are added the claims of the widow and fatherless children.—The lady-like treatment bestowed upon visitors by Mrs. P. and her eldest daughter cannot but prove acceptable to those who visit the garden.—*N. Y. Gaz.*

RURAL ECONOMY.

DISEASES OF SHEEP.

Mr. Smith: *Richlands, Feb.* 22, 1831.

I have not the pleasure of Mr. Meade's acquaintance—but I have viewed with much interest his great success in the improvement of his sheep. By neglecting to file the "American Farmer," I unfortunately cannot have reference to "the malady alluded to last autumn in a communication on the subject of the Frederick Sheep." I will, however, say a few words on the general treatment of sheep, in order to avoid the cause of the diseases to which they are liable, as well as the most successful remedies as tried by myself. I do not believe I can communicate any thing new to Mr. Meade. It will, at least, I hope, persuade him, I am earnest in my desire to be serviceable.

Frequent change of pasture is of the utmost importance; when confined to the same for any length of time they become satiated, and seem to pine for a change. Sheep have a quicker digestion, and their stomachs are more susceptible of derangement than most other animals; when not confined they are great wanderers, probably in search of this variety of herbage, which seems so necessary to them. They should be regularly salted twice a week, and when on rank pasture, or after continued rains, about one third of pounded rosin should be given with their salt, this will prevent their scouring, assists their digestion, and prevents consumptions, to which disease sheep in this climate are extremely liable if at all neglected.

The system of confining sheep in the winter is a barbarous practice; to it I attribute most of the diseases which are so prevalent in the spring. The foot-rot, stoppage of the duct in the foot, loss of appetite, and general debility is the consequence, unless extraordinary care be taken; still they will pine for their natural love of liberty and cleanliness. A shelter in some large field to protect them from the wet is all that is necessary; the irregularity in most large upland fields affords them sufficient protection from the winds.

The worm in the head is very destructive in most large flocks. It is produced by a bee; it lays its eggs in the nostrils of the sheep, about the middle or last of August. By the end of September they are hatched, and lodge in the cavity between the nostril and the windpipe. The pains occasioned by these intruders seldom appear until the spring, and may be discovered by a sickly countenance, loss of flesh, desire to be alone, running at the nose, and snorting as if endeavouring to dislodge something. In some instances they will spring about, toss up their head in a frantic manner, and drop dead; when this happens the worm has effected a lodgement in the brain. Some years ago a neighbour sent to say he had lost several sheep suddenly. I went to see him immediately, found that ten had died in the course of the previous day and night. I suspected the worm, and upon opening their heads found many as large as a pipe stem, and upwards of an inch long; they had reached the brain. Where they do not kill, they are often so distracting to the animal as to cause it to lose its wool before shearing; where the lambs are not lost, they are sure to be stunted by the sickness of the parent. They often pine away and do not die until June or July. About this period the worm leaves the sheep, casts off his skin and takes flight.

The following remedy was given me by a shepherd from "the Cheviot Hills:"

To a pound of scotch snuff add about a gallon of boiling water, stir it well, when cool, with a syringe inject a table spoonful up each nostril; this must be repeated at proper intervals from the middle of October to the last of November. The grubs are then small and easily destroyed. I have seen knots of small white grubs discharged after this operation. A small quantity of asafoetida added with the snuff will make it more effectual. Be not alarmed after the operation to see the sheep drunk, and apparently in the agonies of death, they will soon recover. Two active hands may go through one hundred in a day.

The stoppage of the duct in the foot, and the foot-rot, are generally brought on by want of cleanliness, or being confined in their own filth. The stoppage of the duct brings on a fever in the foot, which causes the foot-rot. It is as necessary to the existence of a sheep to keep this duct open, as its food. After the stoppage the matter hardens or toughens by the feverish state of the foot, and when drawn from the duct, has all the appearance of a worm.

Sir John Sinclair many years ago gave me the following excellent remedy:

Boil equal parts of tar and pounded charcoal together, when moderately cool, take a corncob and rub the foot with the mixture, and between the toes, till it nearly bleeds; then take an awl or sharp instrument and draw out the matter.

As to the water in the head, dropsy, or the rot, I am not aware that I have ever had a single case. The smallest quantity of unsound grain will immediately throw a fat sheep into such a fever as to endanger its life; many sheep die suddenly from this cause, when turned upon grain fields after harvest. If timely discovered, drench with about a gill of whiskey mixed with a small quantity of sulphur. This is best done up the nostril by the syringe.

Red clover is a dangerous pasture either for sheep or horned cattle. I would recommend the free use of salt and bran, or the sowing the head lands, or every 10th land in the field with parsley; it is an excellent pasture, fattens wonderfully, and is as great an improver of land as the red clover; but the clover will choke it if sown together. Every animal is fond of it, and it effectually corrects the ill effects of the clover. A small quantity of seed will sow an acre.

I remain, sir, most respectfully, your obedient servant,
Jas. Cunningham.

PRESERVING FRUITS.

Mr. Smith: *Prospect Hill, near Lancaster, Ohio.*

A member of the Dublin (Ireland) Society, has presented me with the following method of preserving fruit of different kinds about twelve months, for which a premium of ten guineas was given by the Dublin Society, to Seignor Ignacia Buonsegna. I am desirous of having it disseminated through the medium of your widely circulating paper. By so doing, you will, as the proverb says, "kill two birds with one stone," as you will confer a favour on the public, as well as on Amicus Humani Generis.

It is necessary to pull the fruit two or three days before you begin the process.

Take care not to bruise the fruit, and to pull them before they are quite ripe.

Spread them on a table, over a little clean straw to dry them; this is best done on a parlour floor, leaving the windows open to admit fresh air, so that all the moisture on the skin of the fruit may be perfectly dried away.

Pears and apples take three days—strawberries only twenty-four hours, these latter should be taken up on a silver three pronged fork, and the stalk cut off without touching them, as the least pressure will cause them to rot; take only the largest and fairest fruit. This is the most tender and difficult fruit to preserve; but, if done with attention, will keep six months; there must not be more than one pound in one jar.

Choose a common earthen jar with a stopper of the same which will fit close.

The pears and apples then, sorted as before, must be wrapped up separately in soft wrapping paper, and twist it closely about the fruit, then lay clean straw at the bottom, and a layer of fruit; then a layer of straw, and so on until your vessel is full; but you must not put more than a dozen in each jar; if more, their weight will bruise those at the bottom.

Peaches and apricots are best stored up wrapped each in soft paper, and fine shred paper between the fruit and also the layers. Grapes must be stored in the jar with fine shred paper, which will keep one from touching the other as much as possible. Five or six bunches are the most which should be put into one jar: if they are large, not so many; for it is to be understood, that whenever you open a jar, you must use that day all the fruit that is in it.

Strawberries as well as peaches should have fine shred paper under and between them in the place of straw, which is only to be used for apples and pears. Put in the strawberries, and the paper, layer by layer; when the jar is full, put on the stopper, and have it well luted round, so as perfectly to keep out the air. A composition of rosin or grafting wax is best; let none of it get within side the jar, which is to be placed in a temperate cellar; but be sure to finish your process in the last quarter of the moon.

Do not press the fruit, as any juice running out would spoil all below.

BOOK-FARMING.

One who is averse to book farming may be compared to the lover of antiquity mentioned below. A gentleman riding in a curricle on a turnpike road, observed a wagoner driving his *team in* an old road, into the mud of which his horses sunk up to their bellies. Being curious to know why the teamster prefered a bad road to a good one, he stopped and requested the wagoner to tell him why he chose such a miserable road, and received for answer, "my father used this road, and I am treading in his foot-steps." The gentleman wittily retorted, "those are uncommonly good eyes you are possessed of, which have the power of perceiving the prints of your father's shoes through mud several feet in depth—it is strange you cannot *see* your error."

GREAT UTILITY OF WORMS.

Lands subject to frequent inundations are always poor; and probably the reason may be because the worms are drowned. The most insignificant insects and reptiles are of much more consequence, and have much more influence in the economy of nature, than the incurious are aware of; and are mighty in their effect, from their minuteness, which renders them less an object of attention; and from their numbers and fecundity. Earth-worms, though in appearance a small and despicable link in the chain of nature, yet, if lost, would make a lamentable chasm. For, to say nothing of half the birds, and some quadrupeds which are almost entirely supported by them, worms seem to be the great promoters of vegetation, which would proceed but lamely without them, by boring, perforating, and loosening the soil, and rendering it pervious to rains, and the fibres of plants by drawing straws and stalks of leaves into it, and most of all, by throwing up such infinite lumps of earth, called worm casts, which being their excrement, is a fine manure for grain and grass. Worms probably provide new soil for hills and slopes where the rain washes the earth away; and they affect slopes, probably, to avoid being flooded. Gardeners and farmers express their detestation of worms; the former because they render their walks unsightly, and make them much work; and the latter, because, as they think, worms eat their green corn. But these men would find that the earth without worms would soon become cold, hard bound, and void of fermentation; and consequently sterile; and besides in favour of worms, it should be hinted that green corn, plants, and flowers, are not so much injured by them as by many species of *coleoptera* (scarabs,) *tipulde* and long legs in their larva, or grub state; and by unnoticed myriads of shell-less snails, called slugs, which silently and imperceptibly make amazing havoc in the field and garden.

Worms work most in the spring; but by no means lie torpid in the dead months, are out every night in the winter, as any person may be convinced that will take the pains to examine his grass plots with a candle; they are very prolific.

RECIPE.

The following recipe is common among English farmers, and may be depended upon as an effectual remedy to cure the scab in sheep. I have successfully employed it. It has cured the scab in its worst stage possible.

Take two pounds of tobacco, half pound of verdigris, half pound of flour of brimstone, five gallons of small lees, boil them well, and afterwards strain them; then add one pint of spirits of turpentine. Only by breaking the scab, and wetting with this liquor, it cures at one dressing wherever it is used, and requires no other care than to let the sheep be dry when the medicine is applied, and the wool grows afterwards as well as ever.

(From the New England Farmer.)

USES OF THE POTATO.

The different uses to which the potato may be applied are the thirty-one following:

1, 2, 3. Its haulm in a green state is good food both for cattle and sheep; dried and burned, the ashes afford potash, or will form artificial nitre beds.

4. The tubers in a frozen state afford starch.

5. Potatoes, young or old, may be eaten roasted, steamed or boiled.

6. They may be made into bread, with one-third part of flour.

7. Soups may be made of them; they may be roasted or fried.

8. With the flour of potatoes, every description of pastry may be made.

9. Converted into fecula or starch, or cut into slices and dried by steam, they may be preserved for any length of time.

10. Vermicelli, and tapioca, are articles which may be made of the flour or starch of any plant, may of course be formed from them.

11, 12, 13. They are mixed with gravy; they are made into paste and starch.

14. Mixed with stucco, they form an improved plaster.

15. They nourish every description of domestic animals, and, during winter, are eaten by hares and rabbits.

16. Cut into slices, and thrown in a certain proportion into cauldrons of boiling water, they prevent the sediment of water from adhering to the sides and bottom of such vessels.

17. They form a wash, or thin plaster for building, which may be colored by soot, ochre or other colors, as washes of lime are colored in this country.

18. Roasted to a brown state and ground to powder, they make a very good coffee.

19. Crushed, they are employed for whitening linen and other cloth.

20. The water expressed from bruised potatoes is a rapid promoter of the germination of seeds.

21, 22. The fecula, or starch, with sulphuric acid, is converted into syrup, from which a species of sugar may be obtained, analagous to cassonade, (moist sugar.)

23. With soot and other mixtures, this syrup makes an admirable blacking.

24. Crushed potatoes, or their fecula, will afford spirit by distillation.

25. Potatoes may be cultivated in caves and cellars, which resource might have saved Missolonghi. We were rather surprised at this remark of Messrs. Payen and Chevalier, as every gardener knows that the young potatoes formed in cellars are merely a remodification or transfer of the nutriment contained in the old potatoes, and as this transfer is always made at a great loss of nutriment, if the besieged at Missolonghi had enough of potatoes to plant their cellars, it would have been more profitable for them to have eaten them as they were, than to have encouraged them to form new tubers.

26, 27. The water contained in the tubers of young potatoes, may be employed in dying gray, and the blossom forms a beautiful yellow.

28, 29. The water of potato blossoms cleans cloth of cotton, wool and silk, and assists in the manufacture of artificial soda.

30. A potato diet cures the scurvy.

31. The sediment of the fecula, mixed with the powder of charcoal, may be made into little billets or bricks, either for building or burning.

All those uses are independent of the application of the apple, or fruit of the potato, the water of which, when immature, might probably be used as in 27, 28 and 29; and when ripe, like the tomato. The tender tops may be used as spinage.

MISCELLANEOUS.

(For the American Farmer.)

THE FARMER'S VERNAL ODE.

The farmer's joyous season,
   Comes tripping gaily on;
Its heralds are the gentle airs,
   Warmed by a genial sun.
And now he wends him o'er each field,
   Each hedge and fence along;
And through the groves and o'er the hills,
   His gladdened herds among.

And joyously he views them all,
   From dreary winter free;
And feels as doth the mariner,
   Just from the boisterous sea.
Though herbage sere and leafless boughs,
   Arrest the careless view;
He sees the living germes that peep,
   Their winter shelters through.

And gladsomely he greets them all,
   Those little buds of hope;
Which soon will 'neath the genial sun,
   Their fragrant flowrets ope;
From which he'll see the future fruit,
   Emerge and ripen soon;
And thence the farmer's store of joy,—
   Of hope the promised boon.

O! deem not tame such pleasures,
   As come with spring's return,
To fill the farmer's bosom,—
   Nor yet their offerings spurn.
For O! of earth the sweetest,
   The purest joys we sing;
Are those the farmer feeleth,
   On the return of spring.

INDEPENDENCE OF THE FARMER.

The merchant and manufacturer may be robbed of the reward of his labor, by changes in the foreign or domestic market entirely beyond his control, and may wind up a year, in which he has done every thing which intelligence and industry could do to insure success, not only without profit but with an actual diminution of capital. The strong arm of mechanic industry may be enfeebled or paralyzed by the prostration of those manufacturing or commercial interests to whose existence it so essentially contributes, and on whom in turn it so essentially depends. But what has the industrious farmer to fear? His capital is invested in the solid ground; he draws on a fund which from time immemorial has never failed to honor all just demands; his profits may be diminished indeed but never wholly suspended; his success depends upon no mere earthly guarantee, but on the assurance of that great and beneficent Being who has declared that while the earth endureth, seed time and harvest shall not cease.—*Gray's Address.*

(From the Oxford Examiner.)

CASTOR OIL.

Mr. Editor:—It is somewhat surprising, that so few persons in this State, are engaged in the manufacture of Castor Oil, especially when we consider how profitable a business it has been to some. The Palma Christe, which affords the bean of which the oil is made, is well adapted to the soil and climate of this state. It is as easily cultivated as so much corn; and an acre of land will very nearly yield as many bushels of beans, as it would of corn under equal circumstances. A bushel of beans will yield at least a gallon of good oil, if no more; which will be worth from $1 75 to 3 50 in the Northern market, and from 2 50 to 4 at home, if we retail it.

The necessary expenses for machinery, &c. are inconsiderable. A house or the coarsest kind, if you choose, with two, or three apartments; an iron screw; and two or three copper kettles, a tin cylinder, 2 or 3 feet long and as many in circumference; a tin pipe, 8 or 9 feet long, and 2 inches in diameter, and 50 lbs. of common bar iron, to make the press, constitute nearly the whole apparatus.—With those who have been anxious to undertake the business, the greatest difficulty seems to have been to know how to *clarify* the oil. Every thing else seemed to be perfectly easy. The manufacturers of oil have always had a sort of "sanctum," in which they clarified the oil and kept their secret; and if they ever divulged it, it was to those who were not likely to oppose them in business, and from whom they generally extorted a handsome sum of money.

I have frequently seen the apparatus necessary for manufacturing the oil, as well as the whole of the process for making it from the time the beans were planted until they were converted into oil, but I have never seen it clarified. The process below I have no doubt will answer; I extracted it some years ago from a periodical, (Dr. Jones of Philadelphia, now of Washington City, is, I believe, the author,) and as it accords precisely with a recipe which a travelling gentleman who professed to be acquainted with the business, showed me some years ago, you may, if you choose, lay it before your readers. A Subscriber.

Into 236 gallons of oil, (from linseed or any other seed,) pour 6lbs. oil of vitriol, and let it be well mixed by beating and stirring for about 3 hours. Six pounds of fuller's earth, is then to be mixed up with 14 lbs. of hot lime, and these when properly incorporated are to be thrown into the vessel containing the oil and vitriol; when the whole is to be kept in complete agitation for about 3 hours. The above mixture is now to be introduced into a boiler containing a quantity of water equal to that of the oil, and the whole to be boiled together for 2 or 3 hours, keeping it continually agitated. The fire is then to be withdrawn, the materials within allowed to cool, after which the water is to be drawn off.—The oil will be found clarified, which after standing some time, will be fit for use.

Reward of Ingenuity.

We have several times noticed a machine for manufacturing wrought nails, invented by Mr. Reynolds, of Bristol, R. I. which has for some time been in operation by a company in that place. Mr. Reynolds has brought this most valuable invention, (the labor of years under every discouragement,) to perfection, so that it will take from the rod, and deliver 200 wrought nails a minute, superior in every respect to the nails worked on the anvil.

Though we regret this invention is to be removed from the state, we must cordially congratulate the indefatigable inventor, and his associates upon the transfer of it, with the exclusive right, to purchasers in Philadelphia, for the sum of $100.000. Its proprietors intend putting it into extensive operation, and we shall, before long, find a supply of wrought nails in the market nearly as cheap as the cut nails.

[*Prov. Dai. Adv.*

To American Farmers and others, interested in obtaining pure improved Short-Horned Cattle.

The numerous complaints of disappointment and loss which have reached England, in consequence of the spurious race of animals which have been exported thence, under the description of "Improved Short Horns," and a knowledge of the fact that they are now to be found, in their original excellence, in but few hands, have induced the advertiser to turn his thoughts to the production of bulls of the genuine breed, and of undoubted excellence, for the American market. It is presumed, that in England, where his stock is known, any assertion of its merit would be superfluous; but it may be necessary to inform the American farmer, until proof of its excellence has been obtained by trial, that it is not considered to rank second to any stock in Great Britain, in respect of the valuable properties which distinguish the Improved Short Horns.

Should the advertiser meet with commensurate encouragement, he proposes to rear annually, a considerable number of Bulls, and will be ready at any time, either to exhibit them to agents employed for selection, or to answer inquiries proposed by letter, addressed to him as follows, viz:—"*The* Rev Henry Berry, *Pensham House, near Pershore, Worcestershire, England.*"

For the convenience of gentlemen resorting to the port of Liverpool, Mr. J. F. Cannell, *of* 68, *Old-hall-street*, in that town, has consented to forward applications for Bulls to the advertiser, without delay, and to state such particulars respecting the stock, as his personal knowledge of it enables him to furnish.

Liverpool, (*Eng.*) *Dec.* 1, 1830.

INDIA RUBBER.

This valuable product, first made known by La Condamine, in 1736, is the juice of several species of trees growing in South America. It flows from the trees as a milky fluid, which soon hardens upon exposure to the air. Various attempts have been made to transport it to Europe in its fluid state without success. Its application to the arts is various, but until recently, no advantage has been taken of one of its most remarkable properties, its elasticity. Two ingenious chemists of Paris, Messrs. Ratier and Guibal, by an entirely new solvent and a very delicate process, have succeeded *in spinning it into threads of various sizes.*—This is subsequently woven into suspenders, garters, surgical bandages for ruptures, fractured or dislocated limbs, &c.

CHINESE COW.

An English publication states that "a Chinese cow, now in England, gives milk so very rich, that one pint of it gives as much butter, (4 ounces) as seven pints of a Sussex cow's milk, both churned immediately from the cow without being set for cream. The Chinese cow is small, and, says Mr. Young, the beef is superior in fatness, and in butter the superiority is as 1400 lbs. to 200 lbs. from a very good country cow." This is such a superiority in milk and beef as might make it an object to the owners of American ships to China, to import some of the stock which is native to that country.—*N. E. Farmer.*

A new species of corn from China has been introduced into Ireland, a sort of skinless oats, the most valuable produced in any country. It has many advantages over other grain, when thrashed from the sheaf, it is exactly like oatmeal, fit for immediate use, and free from any particle of rind or husk.

The flavour is delicious, and it contains much farinaceous matter. There accrues, of course, a great saving of the oats and expense of kiln drying, grinding and sifting, is avoided. The average produce is 26 barrels of 14 stone, to the Irish acre. It is remarkably hardy, and well adapted for this climate.

[*Limerick Chronicle.*

RECIPES.

HONEY-LOCUST BEER.

Take one bushel of honey locust seed and pods, when about ripe, break them, put them into a barrel, and fill it with boiling water: let it stand until milk warm, then add a pint of good yeast. Put in the bung lightly until fermentation is nearly over, then rack off, as with cider; when clear, bottle it and wire the corks. When kept a few months, it is equal to sparkling Champaign. It can be used in two days after it is made.—*Western Tiller.*

CURE FOR FROST BITTEN FEET.

Take the fat of a dunghill fowl and rub the place or places affected with it, morning and evening over a warm fire—at the same time wrapping a piece of woollen cloth, well greased with the same fat, round the frost bitten parts. In two or three days they will feel no pain, and in five or six will be quite cured. If the inner bark of elder, or the leaves of plaintain be first simmered with the fat it will be the better.

(From the American Daily Advertiser.)

CURE FOR THE CRAMP.

Mr Poulson:—Effectual relief from cramp in the leg or foot, may be obtained from tying a *cotton* garter on the skin above the knee. It matters not whether it be loosely or tightly bound. If applied at the moment of suffering it will relieve in a few minutes. If put on when going to bed, it will prevent the recurrence of pain during night.

Having often, and without an instance of failure, experienced the comfort of this simple remedy, I wish to make it more generally known, as a fact valuable for this common purpose; and if some medical man were induced to consider and trace its principles perhaps more important consequences might result.

A Subscriber.

SUBSTITUTE FOR MILK AND CREAM.

Beat up the whole of a fresh egg in a basin, and then pour boiling tea over it gradually to prevent its curdling. It is difficult, from the taste, to distinguish it from milk or cream, when used in tea or coffee.

THE FARMER.

Baltimore, Friday, March 4, 1831.

A Great Mistake.—Many persons suppose that no more improvements can be made in agriculture—that every subject has been sufficiently discussed; and therefore nothing more need be said or written. It might suffice, to rebut this assertion, to say that it is neither more nor less than saying—"the agriculture of the United States has attained a state of perfection." But it is a great mistake. Agriculture has scarcely passed its infancy in this country. We speak of agriculture in general. There are a few farmers who have made advances far beyond the mass of husbandmen; but they are exceptions which prove the general rule. Pray how many farms in the United States, of the same number of acres, (250) have sold as much produce as the Orange farm during last year? Are we wide of the mark in saying, not one in Maryland, not ten in the Union? How many have produced half as much? The Orange farm sold last year *nine thousand six hundred dollars* worth of produce. Let it not be asked, "to what kind of produce is the Orange farm devoted," for all farmers are at liberty to go and do likewise; but let the question, how many farms produce as much? be answered. If none, or few, which is the fact, then how can it be said or rationally supposed, that no further improvements can be made in our agriculture? The truth is, that by attention to small things, economising in time, making the most of every thing, and *gathering up the fragments*, the proprietor of Orange farm makes dollars, where most farmers would make cents. Go to that farm; look at its arrangements and management. There you will see nothing lost; neither time, which is money, nor labour which produces money. There every particle of matter that can be converted into food for man or beast is availed of. One half the nutriment of fodder is not lost by passing the stomachs of cattle undigested, in consequence of improper feeding; but the whole is saved, by preparing the fodder by cutting and steaming; so that not only all the nutritive matter is saved, but the food is rendered more palateable to the animals. The intelligent manager of that farm allows no animal to be fed on long or raw food. Another peculiarity in his management is worthy of notice. There is not on Orange farm an unproductive animal, or a useless thing. The very dog that basks in the sunshine and barks back the poacher, has his regular hour of duty in the wheel, pumping water, cutting straw, turning the grindstone, &c. If there are no useless animals to feed, neither are there any worthless buildings to keep in repair for show. On passing Orange farm, the traveller would suppose it to be the comfortable residence of some comfort-loving, unambitious farmer, who has enough because he wants no more—being just able to pay his taxes, and "make both ends meet"—yet Orange farm produces *nine thousand dollars a year!* How, it will be asked, does this farmer produce so much more than any other. We answer emphatically, by discarding, as fallacious, the idea of perfection alluded to at the head of this article; by believing, that even his system is far from perfect; and by continually bending his attention to improvements. If, therefore, agriculture in this country is not susceptible of immense improvement, why do not all our farmers produce as much as the skilful one of Orange farm? Taking this farm as the acme of perfection, surely it will be admitted that all our farms of equal soil may be made equal to it; and if so, has the subject of agriculture been sufficiently discussed? need nothing more be published? are there no more improvements to be made?

Another Great Mistake.—Many farmers suppose, that the small sum they pay annually for a newspaper or an agricultural paper, is so much money given away. I have not time to read it, says one; it no longer possesses novelty for me, says another; I cannot afford to take it, says a third. Now let us suppose a case—an extreme one, it is allowed, but perfectly applicable to such reasoners: Suppose the art of printing, writing, and the mail, to be struck from existence—what would be the condition of the farmer? We leave the answer to farmers themselves, satisfied entirely that there is not one intelligent man in the United States that would not freely give double the sum they now contribute to their support, for their restoration. The press is like many other blessings—it confers its favors imperceptibly. Every farmer is benefited by the press without knowing it. He receives information, which at the time is not noticed; but it is precious seed accidentally scattered in the soil, which at the proper season will yield him valuable fruit. We need not descend to particulars; but refer every farmer to his own case. Has he not obtained some new and valuable mode of cultivation; some method of correcting an evil or preventing loss; some new article of cultivation; some new material for improving land; some remedy for disease in his stock, through the medium of his paper, which has enabled him to make or save more than the cost of the paper? We can name many persons who have informed us that they have made and expect to make money by taking the American Farmer. Some have said that they have made more than one thousand dollars from information derived from a single article in our columns, and we will venture the assertion, that there is not a single individual who has taken the Farmer twelve months that would be divested of the information thence obtained, for double the cost of it. Then is it not a very great mistake to say that you cannot afford to take an agricultural paper?

Prices Current in Boston, Feb. 23.

Apples, new, bbl. 1.75 a 2.00. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 8.50 a 8.75; cargo No. 1, 7.25 a 7.75; No. 2, 6.50 a 6.75. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new-milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 6.75 a 6.87; Genesee, 6.75 a 6.87; Rye, best, —— a ——. *Grain*, Corn, bu. .70 a 72; Rye, .75 a .80; Barley .60 a .65; Oats 42 a 46. *Hogs-Lard*, 1st sort new, lb. 9 00 a 10.00; *Pork*, clear, bbl. 17 a 20; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Wool*, Merino, full blood, washed, .60 a .65; do. do unwashed, .— a .—. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .52 *a* .58, do. half blood, .48 *a* .50; do. quarter, 40 *a* 42. Native, washed .40 a .42; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 45 *a* 50.

Prices Current in New York, Feb. 26.

Beeswax, yellow 19 a 21. *Cotton*, New Orleans .10 a .11; Upland, .8½ a .10; Alabama, .9½ a 11. *Cotton Bagging*, Hemp, yd. 18 a 20; Flax 12½ a 16; *Flax*, American, 7 a 8.——*Flaxseed*, 7 bush. clean .13 75 a .—— *Flour*, N. York, bbl. 6.44 a 6.50; Canal .6 62 a 6.87; Balt. Hwd. st. —— a 6 62—; Rh'd. city mills 6.50 a —— country, 6.50 a ——; Alexand'a, 6.37 a 6.50; Fredericksburg 6.37 a ——; Petersg. 6.25 a 6.37; Rye Flour, 4.00 a 4.12; Indian Meal, per bbl. 3.50 a 3 62½; per hhd. 16.50 a 16.75. *Grain*, Wheat, North, 1.40 a 1.45; Vir. 1.35 a ——; Rye, North, 75 a 76; Corn, Yel. Nor. .— a 75; Barley, 78 a 79; Oats, South and North, .40 a .44; Peas, white, dry, 7 bu. 5. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.25; cargo 4.50 a 5.00; Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 8½. a .9½; Pork, mess bbl. 13.00 a 14.25.

AGRICULTURAL WAREHOUSE AND SEED STORE.

The subscriber would inform the public that he has the following articles in store for sale, all of the best materials, faithfully and well made, viz.

Gideon Davis' highly approved Patent Ploughs in all their variety—Davis' ploughs improved as more adapted to stiff soils. Bar Share and Coulter Ploughs improved. Substratum and Shovel Ploughs, Cultivators for Corn and Tobacco. His Patent Cylindrical Straw Cutters, superior to any other article of the kind in use, also Dutch Cutting Boxes, Wheat Fans, Threshing Machines, an assortment of Hoes, Shovels, and Spades, Hay and Manure Forks, Cast Steel Axes, Wove Wire, together with a variety of other implements of husbandry of the most approved kinds. Also a general assortment of the Messrs. Landreth's Garden Seeds, which are fresh, and of prime quality, Clover and other Grass Seeds. Fruit and ornamental Trees, Bulbus Roots, Flowers, &c. furnished to order. Likewise Peirson & Walker's superior Mule and Jenny Spindles. J. S. EASTMAN.

N B. Plough castings kept constantly on hand to supply the place of those worn out, also all kinds of repairs done at short notice. J. S. E.

FRESH EUROPEAN GARDEN SEEDS.

The subscriber has just received from Europe a small supply of the very best seeds of the following kinds, growth of 1830, and raised by one of the first horticulturists in Europe:—Cabbage, Early York, Early George, Wellington, Sugar-loaf, Ox Heart, Bonneuil, late German or Dutch, Red Head, curled green Savoy; Dutch Asparagus, blood and yellow Beet, Nasturtium, Long Red and Yellow Carrot, Solid Celery, Curled Endive, Cauliflower, (early and late,) Brocoli, (white and purple,) White Dutch Cucumber, Long Green do. Windsor Beans, Long Pod do. Prickly Spinach, Early Head Lettuce, (several other kinds.) mellons, the best kinds known in Europe, Onion, white, pale and deep red, Long Parsnip, Curled Parsley, six weeks' Peas, Tomatoes, Early round Turnip, round Dutch yellow Turnip, early long rose coloured Radish, early rose coloured Turnip Radish, Sea Kale, &c.; altogether forming one of the most choice assortments of seeds ever imported. Those who wish to obtain such seeds for spring planting, are advised to send in their orders early. Orders to the amount of five dollars can be sent by wagons to any part of the western country, and by water to any part of the southern states.

GIDEON B. SMITH, Farmer Office.

BALTIMORE PRICES CURRENT.

Baltimore Market.—The navigation is now fairly open, and business has resumed its usual activity. In consequence of news from Europe an advance has taken place in the prices of flour and wheat. Sales of Howard street flour have been made at $6 25 from stores, and $6 a 6.12½ has been paid for it to the wagons. It is, however, quite unsettled, and no positive quotation can be made. We cannot hear of any sales of wheat, but our quotations are the rates that would be given to day. Beef has advanced a trifle, but it must be first rate to command our highest quotation.

Tobacco.—Seconds, as in quality, 3.50 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10 00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00. The inspections of the week comprise 10 hhds. Ohio.

Flour—best white wheat family, $6.50 *a* 7.00—super. Howard-street 6.25 *a* ——; city mills, 5.75 a ——; Susquehanna, — *a* —; Corn Meal, bbl. 2.25 Grain; red wheat, 1 25 *a* 1.30; white do. 1.20 *a* 1.35 Corn, white, 60 *a* ——yellow 60 *a* ——new white — *a* .——yellow — *a* ——Rye, .— *a* .—Oats, .30 *a* 31, Beans, 90 a 1.00-Peas, 50 *a* 60—Clover seed 5.50 *a* 6.00 Timothy, 2.00 *a* 2.50—Orchard Grass, 1.25 *a* 1.50—Tall Meadow Oat Grass $3,00—Herd's, --- *a* 1.00—Lucerne 30 *a* 37½ lb —Barley, 62½—Flaxseed —— *a* 1.30—Cotton Va. 9½ *a* 10½—Louisiana 11½ *a* 12½ —Alab. 9 *a* .11—Tenn. 9 *a* .10—N. Car. .9 *a* .10½—Upland 10 *a* 11—Whiskey, hhds 1st p 27½ *a* —; in bbls 29½ *a* 30—Wool, common, unwashed, lb. 15 *a* .16—washed, .18 *a* .20—crossed, .20 *a* .22—three-quarter, .28 *a* .30—full do. .30 *a* .35, accord'g to qual.—Hemp Russia, ton, $220 *a* —; Country, dew-rotted, 5. *a* .6c.- lb. water-rotted, .6 *a* 8c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 4.00 *a* 4.25—Mackerel, No. 1, 6.37½, *a* 6.50—No. 2, 5.87½ *a* 6.00—No 3 3.43¾ *a* 3.50; Bacon, hams Balt. cured 10c.—Feathers, 34 *a* —Plaster Paris, cargo price per ton, 4 25 *a* 4.31¼, ground, 1.37½ *a* —bbl.—Iron, gray pig for foundries per ton 30.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00 —Prime Beef on the hoof, 5.25 *a* 6.50.

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TERMS.

1. Price five dollars per annum, due at the middle of each year of subscription.
2. Subscriptions are in all cases charged *by the year*, and never for a shorter term.
3. When once sent to a subscriber, the paper will not be discontinued without a special order from the subscriber; and then not till the end of the year of his subscription that shall be current at the time of receiving such order.
4. The risk of mail in the transportation of both the paper, and of bank notes sent in payment for it, is assumed by the publishers.
5. Advertisements connected with any of the subjects of the American Farmer, inserted *once*, (seldom more) at one dollar per square.
6. All letters concerning this paper must be directed to the publishers. They must be free of postage, except communications intended for publication, and letters containing money.

☞ All Postmasters are requested to act as agents for the Farmer; they are authorised to retain $1 for each new subscriber, and 10 per cent. on *all other* collections.

Printed by John D. Tuy, corner of St. Paul and Market streets.

AGRICULTURE.

(From the "Transactions of the American Philosophical Society.")

Observations concerning the Fly Weevil, *that destroys the wheat, with some useful discoveries and conclusions, concerning the propagation and progress of that pernicious insect, and the methods to be used to prevent the destruction of the grain by it.*

By Colonel Landon Carter, *of Sabine Hall, Virginia; transmitted by Colonel* Lee. *Read, and ordered to be published, November 15th,* 1768.

It is not in my power to oblige you with the paper that I some years ago published in our Gazettes, upon this little destructive insect, called the Moth or Fly-Weevil. However, as you are very earnest in your enquiries as to its particular nature, in order, if possible, to save so beneficial a commodity as wheat to America, which perhaps in a few years (unless such destructive insects do infest it) might become a kind of granary to most parts of Europe, I will from my diaries, put together those discoveries that led me to write that paper; and also what has since occurred to me in the attacks that our country has lately met with from those insects; for it is a certainty they continue amongst us, just as the season favours or not their propagation; although some will fancy they have their periods for coming and going away.

It is but something more than twenty-five years ago, that I heard any thing of such an insect that injured our wheat; but since then I have had frequent occasions to take great notice of it: and have had great reason to be very anxious to examine into the nature of that fly. It is with much propriety called a Weevil, as it destroys the wheat even in our granaries, though it is not of the kind termed by naturalists the curculio, of which they have given a very long list; for it is not like a bug, it carries no cases for its wings; neither has it any feelers, with which the curculio is always distinguished: and perhaps (as I fancy it will turn out in the course of this letter that they never attack grain when hard) they really have no occasion for such feelers. For from the make of it, to my judgment it appears an impossibility that it should ever perforate into a hard grain, being furnished with nothing in nature, from the most minute examination by glasses, that could make such a perforation; and seems indeed a fly itself, consisting of nothing sensible to the slightest touch with the finger, nor to the eye, assisted with glasses, leaving only a little dry, pale brown glossy dust, on being squeezed.

Having observed the wheat from my Northumberland quarters, never affected by it; but constantly sound and perfect, through many years that I have been obliged to keep it for my own use, even in the same granary with Weevil-eaten wheat: I was, and am still, inclined to conclude, the enemy is somehow lodged in the grain before it grows hard. It might not have been then too late to have had that better proof of this, which I have since been able to get, by discovering little eggs and maggots half formed into flies in the grain. But as I had nothing particular at first to lead me to such an examination, I waited till the next crop; and at all times, between day and dark in calm weather, during the several days of growth from the blooming time, till the livery or hardening state of the grain, I visited a field, if possible, to discover whether any of these flies appeared amongst the heads of the wheat during the soft state of the grain. Accordingly, in a pleasant evening, after the sun was down, and every thing serenely calm, I found the rascals extremely busy amongst my ears, and really very numerous. I immediately inclosed some of them in a light loose handkerchief; and by the magnifiers of my telescope, I took occasion minutely to examine them.

They are a pale brownish moth, with little trunks or bodies, some trifle shorter than their wings; and as some of their little bodies appeared bulging as if loaded, I applied the pressure of a fine straw upon them, and saw them squirt out, one after another, a number of little things which I took to be eggs, some more, some less; some emitted fifteen or twenty of them, and others appeared extremely lank in their little trunks, which I could not make discharge any thing like an egg. Whether they had done this in the field before, or were of the male kind, I could not tell, but from this discovery I find in my diary, many years ago, this conclusion, "that there need not be above two or three flies to an ear of corn, to lay eggs enough to destroy the greatest crop."

I must observe, at that time, that the bloom or farina of the ears had for some days disappeared, and the grain was nearly filling, though in a kind of milky state; and at such a time the husks or capsules are generally sufficiently open to admit the entrance of such flies; for I imagine, that as nature certainly intends that farina to impregnate the grain, and as that could only be done by its falling into the capsule, she must necessarily favor such a process by opening the mouths of those vessels.

Some agree with me, that the fly does not perforate the grain, but they say it lays its eggs upon the top of the husk, and when they are hatched into maggots, those eat through the husk into the grain; but I must think such a suggestion certainly liable to many objections, even in the pea, from whence such gentlemen have drawn their arguments: The egg of that bug, they tell us, is laid upon the back of the pod, next the pea; and from thence it hatches, and eats through the pod into the pea. The settling of such a point seems to be of little consequence, but to justify nature or providence in the wisdom as well as perfection of its modes. Can it then be presumed that an insect should, by particular instinct, be directed, to deposite its eggs for its species into a proper nidus, which should be also a pabulum for the young as that egg hatches, and yet that they should only be permitted to do this upon the outside of the coat of the nidus, from whence it may be liable to be removed by numberless accidents? For where one egg only is laid, the viscus matter that might surround it, cannot reasonably be thought a cement sufficient for a grain or husk in actual growth, as it might be with a number of eggs studded together on a leaf, or round a twig, according to the nature of some flies. Again, should even so small a viscous matter confine the egg to the outside of the pod or husk, against many accidents, yet what can we suppose will preserve the maggot, just hatched, from those accidents, when it lies on the outside, on the back of the pod or husk? Besides, I must think I have discovered an egg as well as a maggot under the skin of the pea, without any visible lead to it, which must be a conviction it is not a maggot till it is hatched in the pea; therefore it seems reasonable that the parent of that bug perforates the pod, and then into the pea, in its tender and soft state.

I wish then such a suggestion may not have arisen from the callous speck that may be observed, with which nature closes up the wound made in the pod, by the parent of that bug. But how is this business of the worms eating through the husk of the wheat, and then the grain, till they come out in a fly, a little above the germ, at the other end of the grain, to be thus constantly performed, if the egg is only laid upon the end of the husk? For we clearly see those eggs do not all hatch at once; and after the wheat is thrashed out, in which operation, to be sure, it must endure a pretty rough usage (effect that business as you will) how can it run so many chances, without being dislodged or destroyed? I may further ask, what should support the maggot from its hatching, till it gets through the husk into the grain? We see in most other species of insects, the worm, maggot or caterpillar, begins to eat as soon as it can twist about, and certainly the husk cannot be the first pabulum intended by nature for this maggot. Besides, from the observed tenderness of such maggots, if they are not well preserved from scorching sun beams, wind or rain, they must be subjected to various destructions, if the egg can be supposed to be hatched but in the grain; and it could not in anywise be the intention of nature, that they should be destroyed by their own misconduct; for we discover, in other instances, that her tenderness to flies, which propagate by eggs, directs them to deposit their eggs on the under side of leaves, that are a good security against the force of sun beams and weather; and as soon as they hatch, those leaves become the immediate food for those maggots, worms or caterpillars.

The same arguments must hold good against the eggs being laid on the end of the grain; and it is no new thing to advance that hundreds of bushels have been carried very fair to every eye, from the barn or treading floor, into the granary; where, if thrown into a heap, the collected warmth vivifies the egg, and, in proportion to the growth of the maggot within the grain, the warmth is increased; and even whilst the middle or lower parts of the heap shall be alive, and ready to fly away, the upper parts shall be quite fair, and yet nevertheless hatch even at some distant day, with a proper warmth, if not perished by any coldness or other excess in weather, or by art: I say then, in such a length of time before hatching, the odds are greatly against the egg or worm's sticking to the grain till it hatches or eats in.

These things being considered, I thought that I had advanced far enough in investigating this point, to be convinced the evil was effected by laying the egg in the grain, and in the soft state of it; and that those observations, said to be made of the egg being laid on the husk, or on the outside of the grain, were inaccurate, and espoused without a due consideration. But, in order to make it as clear to others as myself, I must here beg leave to assert, that I have distinctly seen with my glasses the egg in the grain of wheat, at the upper end of it, beneath the skin, and round it a small yellow stain, as if the milky substance had received a tincture from the egg; and as a further confirming circumstance that these eggs are laid in the soft state of the grain, I find in my diary, that many years ago I visited a field of one of my neighbours, who having been extremely late in his harvest, in very warm and temperate weather, had his wheat all eaten out; the flies were crawling out of the ears, and this whilst the wheat was standing.

Again, that the conviction may be as full as possible, it is an indisputable certainty, that this maggot eats from the upper end of the grain, as it stands in its husk, down to the lower end, and comes out in a fly a little above the germ. Now to suppose that these eggs are laid constantly upon that end of the grain, is to believe this fly capable of distinguishing such particular end, in every confused direction that the grain may be thrown into after it is thrashed out; and therefore the notion of the fly's laying its eggs upon the outside of the grain, and that egg's never being dislodged, and the maggot's hatching upon that end, and eating into the grain, without being removed from that particular end, must be an absurdity of the first magnitude. In the husk indeed the fly might find that certain end of the grain, because in that it always lies in its proper direction, and it is reasonable to conclude that instinct would serve a fly for such a purpose; but then this cannot remove the absurdity before taken notice of, that of laying its egg upon that end of the grain constantly, as well before as after it is thrashed.

Nature, I may say, from the minuteness of her ways in effecting her intended purposes, is frequently out of the comprehension of man, and although his microscopical improvements upon vision have helped him to many discoveries, numerous are the things that seem still to remain as a secret to him. We can see in some flies their immediate changes from the first process of propagation, quite through their periods of life; and from thence we are inclined to pronounce a rational history of their continuance, brood after brood: yet in some flies, though we can carry them through all these several changes, there are certain phænomena not to be accounted for; particularly, how the length of time between their changes into flies, and their laying their eggs for the continuance of their species, is employed by them. This defect we generally supply by conjecture, that the time is spent in some torpid state: but there are some discoveries as to certain insects, that make it extremely difficult to suppose such a state; and if we regard what naturalists tell us of some of the moth flies, and indeed our own observations upon them, "that after they become a fly, they never attempt any kind of sustenance, but are seemingly solely employed in the business of fecundation, and the females in particular, in depositing their eggs for a new brood," we shall be puzzled to account how insects, that never eat after their change into a fly, can exist through so long a period as a great part of the fall, and generally of a long winter, till the period of the soft state of the new grain; and to what shelter they can retire from such a series of weather, generally too severe for such tender forms. We may imagine some intermediate brood, but what shall we fancy to be the nidus or food to bring them to this fly weevil again, ready for that new period of softness in the succeeding crop of grain? From hence, perhaps, it is that some gentlemen have grown fond of the opinion, of their eating out of one grain, and then flying to another grain, and laying their eggs upon the ends of them, for a new brood; but as even weevil eaten wheat is generally consumed one way or another, long before the kerning of the new crop, the difficulty (by such a supposition) will have many long months to contend with. Therefore others tell us, they lie about in barns, &c. However, the standing crop eaten up, before taken notice of, is with me sufficient to confute such a solution of that difficulty: and I might add my own strong fumigations of my barn and granary (though enough to destroy a world of insects) have been unsuccessful, with respect to this fly weevil, in the new crop.

I must here step aside to inform you, that though my wheat would, when weevil eaten, pretty generally come up in the field, yet when I was obliged to sow it, if I did not double the usual quantity (which the season always governed me in) the ground would be scanty, and extremely beggared for want of seed. I readily concluded the cause of this to be, that the grain was too much eaten (that is) the maggot was too far advanced in it, and therefore such grains perished; and indeed for satisfaction in this point, I twice tried, after washing the grain, and drying the light, chaffy stuff that swam at top, to sow those grains, and constantly found all that I could squeeze flat with my fingers, never sprouted, sow them how I would. This, I hope, will be looked upon as a very good answer to both of those hasty assertions, that such wheat will nevertheless grow when sown, and likewise make a tolerable flour; for grind it how you will, I must be bold to say, it can produce no flour at all; and the flour imagined to be got from weevil eaten wheat, is only from such grains of it that have escaped the weevil, or are but half eaten, perhaps by the maggot's not having run its course in nature before it was destroyed; which is the presumed cause of that prodigious clamminess in bread, from wheat that has the weevil in it, as the moisture of the maggots continues in the flour; but in biscuits that clamminess may be dried up, by the heat of the oven, as those cakes are generally very thin.

The author of the Complete Body of Husbandry, vol. iv. page 347, of the octavo edition, speaks of a fly in England, that sometimes attacks the wheat in its soft state; and calls it a small black fly, not bigger than a large pin's head. He says they fasten on the ear in numbers, eat into the corn, and lay their eggs, which hatch into maggots, and devour part, and spoil the rest of the grain. He further says, the fly may be dislodged whilst it crawls on the ear, for they are so tender, that a very little force will destroy them, and that they only appear in dry years, for rains in any quantity destroy them; and from thence recommends the Irish method of rope-hauling the wheat in dewy mornings, to brush the fly off, which will then be destroyed.

I cannot readily agree with him here; for certainly as the fly got to the ear before, it is reasonable to think it could, after falling off, crawl up again, unless the fall could be supposed to crush so small an animal as a pin head. Therefore I was persoaded, unless the disturbance of rope-hauling was constantly given, the fly would return again so often, as to make it a tedious work of many days, at least every morning and evening, from the casting of the bloom, to the hardening of the grain. I have since fancied, that by the same author's method of fumigating turnips, just come up, in his third vol. page 348, with orpiment, every here and there, thrown about on live coals, to windward of a wheat field, in a gently moving air, the prodigious thick foggy smoke raised by that drug, might kill the moth-fly, as he says it will do the turnip-fly, without injuring the turnips, even in vegetation. I say, I imagined the doing this pretty often in the wheat field might be of service; for though orpiment is of an arsenical nature, as I found it so strongly recommended, and have also read, that though poisonous, it had been successfully prescribed to be worn round children's necks, as a destroyer of worms; I at first thought that might do: yet as fire often renders things (really safe and innocent when crude) very noxious, there might be a possibility of danger in it; and reading of many bad symptoms occasioned by it to the shot casters, who use it to increase the fluidity of their lead, that it may run quicker or more certainly into globules, I could not think (upon better reasoning) to make use of such an experiment.

My end in all this enquiry, was to prevent the destruction made in wheat, by destroying this insect in its egg; and I imagined I had foundation enough to conduct me to that point, from the accounts given of hatching in Egypt, and what we may collect with certainty from Du Reaumer's elaborate treatise upon raising fowls; besides many little family observations, that corresponded with the common sense of things. Experience shows, that a fowl greased (as they sometimes are under the wings to kill the lice) can never hatch an egg. I also remember a lady, curious in turkeys, in order to produce a forward brood, set her hens in her smoke-house, whilst her meat was hanging, but the eggs did not produce one pout; and it was discovered that the hens had been greased by the accidental drippings of the meat.

As these discoveries squared with the French method of preserving eggs, by tallowing them over, founded certainly upon the principle of keeping out the air, which would otherwise give them, in long voyages, a noxious and disagreeable taste of staleness; I thought I might conclude, that besides warmth, air was essential to the vivifying or hatching an egg; and the hen-house wives confirm me in it, by their constant observation, that hens, &c. not only turn their eggs, but leave their nests, at proper periods; and those that hatch well, cool themselves frequently with water, whilst others perpetually brooding (if they do not die themselves) addle their eggs.

Upon these two principles, then, of heat and air, I thought myself pretty certain of effecting the destruction of these eggs in the grain; and therefore I endeavoured to hit upon such a method for their destruction, which should be attended with the least labour and expense. Too much warmth, or too little, or an entire exclusion of the air, must do the business.—Could it be consistent with the prudence of a farmer to thrash out his grain as soon as reaped, to be sure a drying kiln might be so constructed, as to destroy these eggs, by communicating too much warmth; but as there are many reasons for a farmer (besides his other necessary business) not to thrash out his grain so soon, lest he introduce the other inconveniency to his crop of mustiness and bad scent, I was obliged to bend my thoughts wholly to the exclusion of the air; for wheat, I know, will contract a degree of warmth in the mow, which is oftentimes of great service to plump out the grain, by something like an after circulation in the straw; and to increase that degree of warmth, so as to destroy the eggs of the Weevil, might be a means to mould the straw, and funk the grain; therefore I say, I fell solely upon the exclusion of the air as much as possible; and this I was happy enough in effecting with great success to my crop for many years, till my old age and infirmity prevented my attending my servants whilst they were pursuing my directions; and not till then had I the least reason to complain, whilst others were eaten up in their crops; but villany and negligence are such concomitants in servitude, that I have been again destroyed, plainly to be accounted for from the visible abuse of my constant directions. The method I have taken is this.

I reap as early as I possibly can, respecting the dryness of the grain, as well as the straw, which would otherwise funk it. At least two feet quite round the mow I leave a vacancy, which is to be well trod with soft hay, or beaten straw; therefore I keep persons constantly treading down those margins as the mow rises; and when I reach the eves of my barn, I lay on and tread down a very thick covering of the same straw or hay, and weighed it well down at top. Had I not found this effectual, I would have gone to the expense of filling in and plaistering my barn, being convinced that the exclusion of air, as much as possible, could be the only effectual method of killing these eggs, which as they are so very small before hatching, could not give the least disagreeableness in either look, taste or quality, in the flour. This method I published many years ago; and many gentlemen have assured me, they have practised it ever since, and continue to do so now with the greatest success. The farmer that chuses to try it, if he suffers nothing to prevent an early harvest, will, I am persuaded, confess the justice of what I have suggested, but if, by any means, he should be late in his harvest, and the temperature of the weather should be suited to the principles of hatching; or if he should be too early in beating out his grain, it cannot then be of any real service, but by accident, as the mischief may be done in the field, and an egg not destroyed in the mow, may hatch in the granary.

You must here permit me to tell you, I have constantly laughed at all those ridiculous nostrums of brining, &c. to prevent this injury of the weevil, as well as that other destructive evil called the rost. They may be of service to quicken the vegetation of the grain; and it is reasonable to conclude they will destroy all vermin that lie in the ground when it is sown; but that this brine, or any other solution, can remain and pass through the course of circulation, in a very long series of winter months, and preserve its virtoe to the kerning time of the grain, so as to prevent these flies from invading it, or indeed to check or correct the corrosive moisture of particular airs, which produce rust, is an absurdity below the dignity of a rational man; notwithstanding many writers have given in to it. I always looked upon those gentlemen, as forgetful of the philosophy upon which they set out with in the first parts of their works; and I suppose to make a book of bulk, they stuff in the errors of old and obstinate farmers, from one century almost to another. I remember I had an ass of that kind, and for the sake of conviction, I indulged his project of steeping and brining; and went so far as to leave him a parcel of wheat which he might put up or mow as he pleased; and though his obstinacy would not suffer him to be convinced, I was, to my cost, whilst the rest of my grain, conducted by my direction, was good and useful. Quicksilver, we are lately told, will circulate with the juices of a plant in vegetation, without injury to it, and it has been successfully applied that way to kill the slugs and snails on wall fruit; yet if the difficulty of inserting it, or impregnating wheat with it, before sowing, could be got over, I cannot suffer myself to embrace any persuasion, that the virtue or subtilty of the quicksilver could continue so many months in the wheat, by any kind of innate quality, in such a long stage of growth, through a very bad winter. Therefore even that discovery, in my opinion, has not removed the absurdity hinted at. I have mentioned the rust, as presumptively occasioned by some corrosive quality in the air; and though it is out of my present subject, I will just hint that Du Pratz, in his history of Louisiana, takes notice of such a destructive obstruction to the raising of wheat in that country, though he does not call it by any name that conveys an idea of rust. He speaks of it as a brown red pearly drop, found at the lower joint of the stalk, which, in a short time, pervades the whole stalk upwards, and perishes the grain: as this is pretty similar to what we discover here, it may not be amiss to look upon it as a corrosive substance, communicated by the air; and I do believe it will be found to be the better opinion, upon a more accurate investigation; for I have long been satisfied, that the ascension of the juices are thereby prevented; and the rusty dust seems to be nothing more than those juices oozing out of those corroded parts, or wounded pores, that turn to that colour on drying; however I must declare, I never yet discovered Du Pratz's brown red drop on any wheat of mine, notwithstanding it has sometimes been destroyed with the rust. This rubigo was a disorder observed in wheat of very ancient date, and the writers, from one to the other, recommend preventing it by brining, &c. as before; some indeed just hint at the truth, by calling it by the general term a blight; but why they should think of curing blights by an application before sowing, is a curious mystery; it should seem as if such men fancied, that the possible constitutions of air can as easily be prevented by their brine, as it can be kept out, or exhausted by an air pump. Some, indeed, impute both weevil and rust to certain soils; but as wiser men than I, have seen cause to complain of the absurdities that have been adopted by writers that were good philosophers in other matters, I shall not give myself any trouble to endeavour at an explosion of such an opinion, well knowing that all lands, where air and moth can come, may be, and are subject to those evils, when they are about; and indeed every sort of wheat that I have tried, has been attacked by them both; but from barley and rye's constantly escaping the weevil, I am at present persuaded their protection happens only from their beards or awns; therefore a long bearded wheat would be worth propagating for a trial, as I never heard the bread made from such ever objected to, nor indeed its increase complained of. This I say, believing that those gentlemen who tell us that bearded wheat has been destroyed by the fly weevil, are some how mistaken, from the improbability of the fly's getting into the capsules through those awns. They give for a reason, that the awn in wheat never sticks to the grain, as it does in barley; but as I never saw rye the least affected by the fly, which is of a similar growth with a grain of wheat, and has no awn growing to it, though the husk has; I must conclude it may be still some mistake in the asserter; for certainly those awns, even on the husk, if any thing long, must embarrass the fly, and prevent his mischievous purpose.

Having thus, my good friend, endeavoured to comply with your request, it remains that I should make some apology for the length of it; but if we consider enquiries into nature must be more or less prolix, according to the helps that can be got, you possibly will think any endeavour to be shorter, might have left my own conclusion less clear and intelligible. I know not how convincing my arguments may be, but you have my free leave to make use of them as you please; and I shall be glad, through your means, to read any thing that may shew wherein I am mistaken.

I am, dear sir, your very respectful humble servant,
LANDON CARTER.

Sabine Hall, July 23, 1768.

IMPROVEMENT OF LAND.

MR. SMITH: *Virginia, Fairfax Co. Feb.* 23*d*. 1831.

I am one of the original subscribers to the American Farmer; I have been often instructed; and as I derive my support from the profits of Agriculture, I look with as much anxiety for the arrival of your paper, as a merchant for that of an European Packet Ship. Like galley slaves, the Farmers of this state have to work hard, and live cheap, and after all they much remind me of those miserables who sat upon the borders of the "pool of Siloam," patiently waiting its agitation by the Holy Spirit—they have heard and many have seen improvements in the soil, that approach to a miracle, but thousands have in despair left their native state and homes, and thousands that now remain would do well to follow, nor "cast one longing, lingering look behind." With a few exceptions, it is unprofitable to improve land; let none make the attempt who does not first ascertain that his soil was at first well constituted—unless he can get lime or marle. Land which was originally or constitutionally good, is easily restored—nothing can be easier. If it be wet, let it be well ditched; no land can be improved that is saturated with stagnant water; this being strictly attended to, put in a good plough, with three strong horses, and lay your patient open to the chine; put in what crop you like best in September; repeat the operation and seed wheat or rye; in early spring give it one gallon of clover seed, and two bushels of plaster; let it remain two years in clover, and permit no animal to tread upon it, or feed upon it; in a few repetitions of this practice his land will become fat enough to be stocked.—I may be asked, what is to be done without stock? I answer, working cattle and milch cows, must be kept in the farm yard; sheep will live upon your poor land, until you can give him good, and so will the hog; but if he will not, and, by means of his wedge and lever power, he should make his way to your clover fields, do with him as the devil did—drive him into the sea. Much has been said about making and applying manure; it is not material that much should be said upon this subject. Let the Farmer make all he can, and apply it as is most convenient. I would prefer to apply it to the surface in this way: I apply mud from the branches, corn stalks, dry straw, weeds or any thing that will cover the land—even pine brush, put on fresh, will pay for the expense of application.

Sick land is not unlike a sick man; keep him dry and warm—scrape his back bone and go on to feed him, having good care to protect him as much as possible from vicissitudes by warm, dry covering.—I have been numbered among farmers for 30 years, and have done something towards the improvement of 600 acres of land, yet, had I to begin again I would leave it and go where land is good and ready for your cultivation—the mere making of my land dry and fit to receive improvement, has cost more than you or your readers would believe.—At a future day I may give you some account of our crop, and the influence of this very severe winter, and, if so I may say more about the preparation and improvement of land. F.

[Our correspondent is welcome. as will be his promised reappearance, notwithstanding we differ from him widely as to the improvement of lands. He is doubtless a Virginian, and an *old* Virginian, if we take his opinions relative to improving lands, as our guide to his locality; but what is to become of the old dominion, if every body moves away in search of better land?]

(From the Genesee Farmer.)

CULTIVATION OF WOAD.

MESSRS. EDITORS: *Rochester, Feb.* 4, 1831.

"Your inquiries relative to the woad plant, induces me to believe that you have an intention of raising it. A considerable quantity of that plant has been raised in different parts of America, both by individuals for personal use, and by cultivators for a market; but those who have engaged in it have been ignorant of what ought to be performed to insure a good article, and American woad is consequently in disrepute. Our market has been supplied mostly from England. German and French ball-woad has been imported to some extent, but owing to its being in a different state from the English, few of our workmen can use it, and for want of sales the importation is stopped. Woad is valuable in proportion to the coloring matter it contains, and as a fermentative medium to bring the indigo used with it to a state of deoxidizement. To perform the latter, any vegetable equally succulent, worked up in the same way, would answer as well as woad. Its principal value, therefore, consists in the quantity of blue coloring feculæ contained in the plant.

"To obtain this desideratum, woad must be raised on a rich soil, not a soil that has been enriched by manure, but a naturally strong, rich soil; unless this can be obtained, it would be useless to make the attempt. Twenty acres of such land, divided into three parts, one third to be cropped every year, would afford a pretty plentiful supply for the present market. Land will not bear more than two crops of woad in succession; not because it is weakened by cropping, but because, after the second crop, the land becomes so filled with white grubs, as to destroy the plants raised on it.

"Upon good land, two tons of woad can be raised on an acre;—*i. e.* two tons when couched, by which process the weight is increased about twenty per cent."

The writer then proceeds to a description of the mode of rearing and preparing the plant for use, &c.

This plant was brought into notice by the ingenuity of Bonaparte, during his reign, in order to render the nation independent of others for dying materials, and was shortly after introduced into English manufactories; but Loudon, a late English writer, of high repute, in speaking of it says, "At present it is to be considered more as a matter of curious historical information, or of local adoption, than of general utility; because no mode of cultivating or preparing woad could bring it into competition, either in the European or American market with indigo."

SEED CORN.

I have been in the habit a number of years, (says a writer in an eastern paper,) of selecting the *best ear of two that grows on a stalk of corn*, and have found it annually to improve to a very considerable increase. After pursuing the experiment for three years, and establishing the fact in my own mind, that by this method there was a constant and accumulative increase and improvement, I communicated the circumstance to my neighbor—he was quite incredulous, and I invited him to a thorough experiment. We took each our field of equal quality of soil, and richness, lying side by side, planted them on the same day, and tilled them alike as we could; the result was, that his, from ordinary seed, produced nearly forty bushels; while mine, from the selected and improved seed, gave me about sixty bushels per acre.

FROZEN POTATOES.—In the time of frost, the only precaution necessary is, to retain the potatoes in a perfectly dark place for some days after the thaw has commenced. In America, where they are sometimes frozen as hard as stones, they rot if thawed in open day; but if thawed in darkness they do not rot, and lose very little of their natural odour and properties.

HORTICULTURE.

(From Poulson's American Daily Advertiser.)

Gardens in the Vicinity of Philadelphia.

Communicated by the Horticultural Society.

Report of the Committee appointed by the Horticultural Society of Pennsylvania, for visiting the Nurseries and Gardens in the vicinity of Philadelphia, July 13th, 1830.

The Committee in making their report, think it right to state to the Society, that what they now offer ought not to be considered as a description of *all* the noted gardens of the vicinity of the city; on the contrary, they give it only as a report *in part* of the prsent situation of our horticulture. The extreme heat of last July, and length of time occupied in viewing those grounds which they have attempted to describe in the following sheets, prevented them from inspecting those extensive vegetable gardens, which supply so abundantly the markets of Philadelphia. It must be the business of another committee at some more favourable time, to report upon those numerous establishments, where leguminous plants of every kind are so copiously and so successfully cultivated. Meantime we proceed to lay before the society the result of our survey, premising that we are greatly indebted to an able gardener, Mr. Buist, for his industry, constant attendance, and intelligence, in noting on the spot, whatever seemed worthy of the society's attention. With these introductory remarks, we submit the following account of our labours.

The first place we visited was the seat of Samuel Breck, called *Sweet Briar.* The house was built by the present owner about thirty-three years ago, and is prettily situated on the west bank of the Schuylkill. Mr. Breck has a green house, fifty-four feet front, for the preservation of orange, lemon, citron, and other tropical trees now on his place, and which are in good order and in fine bearing. The garden has been made at considerable expense, and may contain, including the plant yard and shrubbery, about two acres. Around the house and through the pleasure grounds, we saw many fine Weymouth pines (pinus strobus.) The Tilia, the Liriodendron, the Acer, the Cephalanthus, &c. planted by Mr. Breck about thirty years ago, and of course producing ample shade. Mr. Breck has likewise an English oak of the same age, raised by him from an acorn, taken from a tree imported, as he thinks, by the late William Hamilton, of the Woodlands—it thrives well. Mr. Breck has taken considerable pains with a hedge of white hawthorn (Cratægus,) which he planted in 1810, and caused to be plashed, stalked, and dressed last spring by two Englishmen, who understood the business well. Yet he apprehends the whole of the plants will gradually decay, and oblige him to substitute a post-and rail fence. Almost every attempt to cultivate a live fence in the neighbourhood of Philadelphia seems to have failed. The foliage disappears in August, and the plant itself is short lived in our climate. Several native lime trees (*Tilia Americana* and *Tilia Europaea*) are planted along the avenue, exhibiting a remarkable difference in appearance; the first retaining its foliage in full vigour until the 15th of October, whilst the latter sheds it leaves as early as the 10th of August, and some years even in July.

From Mr. Breck's the committee went to *Haddington*, about six miles from town, where Mr. Rhoades has a well stocked Nursery, consisting chiefly of fruit and forest trees. There are five acres cultivated for that purpose. Mr. R. computes his stock at one hundred thousand saleable trees. He grafts a good deal, which he prefers to budding or inoculation. His success has been great this season; and some of the young scions shown to us, were three feet high; not one of twenty failing. The fruit trees are apples, pears, peaches, apricots, plums, &c.

Connected with this large nursery is a very fine orchard of fifteen acres, in full bearing. The fruit is converted into vinegar, which Mr. R. considers more profitable than cider.

Very near Haddington stands the seat of Mr. J. B. Smith. Mr. S. is distinguished as an amateur horticulturist and botanist, especially in tropical plants, the collection of which is the most select in Pennsylvania. Cultivated with the greatest care by his own hands, they are in a state of perfection; and regardless of cost in the purchase of splendid specimens of rare plants, his hot and green-houses display extraordinary taste and beauty.

We observed the Banana tree of the West Indies (Musa paradisiaca) in fine flower—a treat that we have never realized before. It promises to bear plenty of fruit. It is about ten feet high, planted in the hot-house, and shows to what perfection trees of the most delicate nature can be brought by judicious treatment. Among other celebrated plants in Mr. Smith's collection, we saw the Bread-fruit tree, Gum elastic tree, Cinnamon tree, Camphor tree, Mango tree, Mahogany tree, and the moving plant, always in action, as if endowed with volition. Here is also to be seen the Zebra plant (Calathea Zebrina,) unrivalled for size in the Union, and possessed of the most beautiful foliage, and the Screw Pine (Pandanus utilis,) a magnificent vegetable production growing in its native soil to an immense height, and setting out from the stem towards the ground large prongs to support its heavy top.

In short, here are about 350 different species of the most uncommon kind; among them is the Cactus grandiflorus; one flower of which Mr. Smith showed us, that he had preserved in spirits of wine, a length of time beyond its usual period of blooming, and in all its freshness and beauty, and unchanged in appearance, except the exterior part of the corrolla, which had turned to a straw colour.

The green-house is 31 feet by 16 and the hot-house 28 by 14, both built in the very best style. The garden and shrubberry well laid out, and kept in good order. The Greville Rose flowered here last year, being the first ever known to have blown in Pennsylvania.

For watering the plants, Mr. Smith is erecting a steam engine of two horse power, that will raise the water 25 feet to a large cistern of 1400 gallons; from which it can be used to any part of the garden. He expects, moreover, to heat the hot-house in the coldest weather, in a suitable manner, by the steam of this engine.*

Mr. Smith's collection of *Camellias* is extensive. He owns one plant of the single white, that is more than 7½ feet high, and perhaps is the largest of any imported into the United States.

It is with pride and pleasure that the committee are able from the above description to avouch a great and growing taste for botany, while the cultivation of the kitchen garden, and new and useful vegetables, seem here and elsewhere, as they will show presently to be closely associated in its success to that of the rare and exotic plants. Mr. Smith's vegetable garden contains one acre, and is richly stocked, and well attended.

Bartram Botanic Garden and Nursery.

Robert Carr, Proprietor.

This garden is situate on the west bank of the Schuylkill about four miles from Philadelphia. It was established as early as 1720, by that great vegetable naturalist John Bartram the elder, at a time when nothing of the kind existed in the then Colonies, except Dr. Clayton's in Virginia. Here are concentrated very many of the indigenous plants and trees of North America; and in greater profusion, perhaps than can be found elsewhere. Mr. Bartram and his son were industriously employed in making this collection for 110 years; so that in reference to out door plants, it must necessarily stand unrivaled. The present owner is likewise adding annually and extensively, and the committee consider his garden and grounds a rich deposite of the American flora. From this nursery, many thousands of plants and seeds are exported every season to Europe and South America. It is computed that there are 2000 species of our native production maintained in a space of six acres. Plants of every size are to be seen here, from the minutest Marchantia to the loftiest Cypress. One of these (Cupressus disticha) is about 112 feet high, 25 feet in circumference, and 91 years old. A young Norway Spruce of 80 feet, stands close by, and also one of our native Magnolia (acuminata,) of the same height. Here too is the Kentucky Coffee tree—the Acacia Julibrissin, so beautiful in flower, and graceful in form—the Fly catcher (Dionæa muscipula,) &c.

On the south of the garden is a field of three acres, preparing for a vineyard, as an addition to the one already planted. Mr. Carr has 145 sorts of grapes, and has produced very good wine for some years past.

The exotic department of this establishment is also very rich, consisting of 900 varieties besides a splendid collection of more than 800 Camellias, containing 36 sorts. The green and hot-houses are 196 feet long, and much framing is in use. The largest Sago Palm that we have ever seen is here. The circumference of the foliage is 22 feet, and of the stem 3 feet 4 inches. Some beautiful species of tropical productions may be enumerated; such as the Euphorbia heterophylla, with its large scarlet flowers, Zamias, Pandanus, Maranta, Ficus, and a Testudinaria Elephantipes, supposed to be 150 years old; some curious species of Cactus lately received from Mexico. These last are astonishing productions and new to us. A Lemon tree, from seed, is worthy of notice on account of its easy propagation.

Mr. Carr's fruit nursery has been greatly improved and will be enlarged next spring to twelve acres—its present size is eight. The trees are arranged in systematical order, and the walks well gravelled. The whole is abundantly stocked, from the seed bed to the tree. Here are to be found 113 varieties of apples, 72 of pears, 22 of cherries, 17 of apricots, 45 of plums, 39 of peaches, 5 of nectarines, 8 of almonds, 6 of quinces, 5 of mulberries, 6 of raspberries, 6 of currants, 5 of filberts, 8 of walnuts, 6 of strawberries, and 2 of medlars. The stock, considered according to its growth, has in the first class of ornamental trees, esteemed for their foliage, flowers or fruit, 76 sorts; of the second class, 56 sorts; of the third class, 120 sorts; of ornamental evergreens, 52 sorts; of vines and creepers for covering walls and arbours, 35 sorts; of honey suckle, 30 sorts; and of roses, 80 varieties.

Mr. Carr, who deserves so much credit for the classification of his nursery, is no less entitled to praise for the admirable order in which his tool-house is kept; a place that in most gardens, instead of possessing regularity is made a mere lumber room. This applies likewise to the seed room, where the best method is preserved, in putting up our native seeds. That apartment, moreover, contains a library of 400 volumes, in which are all the late works on Botany and Horticulture.

Thomas Hibbert's Exotic Nursery.

On the 14th of July, the committee visited Mr. Hibbert's establishment. It was commenced seven years ago, on a lot in Chestnut street, with only one small green house, and such has been the rapid increase of horticultural taste, particularly in ornamental gardenings, in Philadelphia and its vicinity, that Mr. Hibbert has found it necessary to erect green and hot houses to the extent of 321 feet! some of them 27 feet wide; and these are found much too small to supply the increasing demand!

Here is a large stock of ornamental plants and flowers, among which are 2000 Camellias, consisting of 34 varieties.

No person in America, we believe, can compare with Mr. Hibbert for success and industry in diffusing that beautiful *rose*. By forcing hand glasses, his mode of propagation is uncommonly sure and quick.

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* Since our visit we learn, that it has been tried and answers perfectly.

Nurseries of D. & C. Landreth.

These extensive gardens are on Federal street, near the Arsenal. They were first cultivated 41 years ago, and have been well kept up ever since. The earliest collection of Camellias was made here. Some of those now in the possession of those distinguished nursery men, are ten feet high. They have 25 sorts; two of them are seedlings in high estimation. The selection of green house plants is valuable and extensive, consisting among many others of the Rhododendron arboreum, 7½ feet high, bearing rich crimson flowers. The Erythrina Cristagalli—conspicuous in the Papilionaceous tribe, and bearing for the second time this season a profusion of flowers; the Strelitzia reginæ, with its curious form and elegantly contrasted flowers; the Corræa speciosa, &c. Different species of the genus Citrus, consisting of the Orange, Lemon, Citron, Shaddock, &c. are in good order, and covered with fruit. The green houses are, 132 feet long, to which is added a room, 40 feet long by 20 broad, and extensive glass framings for keeping plants. Adjoining the mansion house are some handsome evergreen hedges of Arborvitæ, *Thuja occidentalis,* and orientalis, some of them are well grown although only three years planted.

In the nurseries we saw a great many magnolias, of which there are no less than 13 distinct species and 8 varieties. One plant of the Grandiflora is 20 feet high and in full bloom. Here are likewise the cordata 50 feet high; a beautiful Elliptica in flower, and a magnificent specimen, 18 feet high, of the Conspicua; the curious Osage Orange, that retains its lucid foliage longer than any other deciduous tree; a very large Virgilia lutea; the Gordonia Pubescens. The Carolina snow drop tree, a beautiful bush 8 feet high, of the Clethra accuminata; the Andromeda arborea; varieties of red, yellow and white Azaleas; fine Hydrangeas planted in the open ground many years back, some of which are 4 feet high and 22 in circumference, with about 200 flowers. One flower measured 12 inches in diameter. It is thus proved, that with a little protection, this shrub will stand our winters in the open ground; a large bush of the Pyrus Japonica, more than 20 feet round, also stands the winter well.

The nursery is all very correctly managed, and covers 40 acres, supplying every part of the Union; a detail of which would occupy too much of our space; we therefore content ourselves with stating that the stock is very large, and in every stage of growth, consisting of forest and ornamental trees, shrubs, evergreens, vines and creepers, with a collection of herbaceous plants; fruit trees of the best kind, and most healthy condition, large beds of seeding apples, pears, plums, &c. stocks for budding and grafting; a plan very superior to that of working upon suckers, which carry with them into the graft all the diseases of the parent stock. In these grounds, are to be seen in the spring, the most beautiful Hyacinths in the country, consisting of 50 different sorts of the double kind. Garden seeds of the finest quality have been scattered over the country from these grounds, and may always be depended upon. The seed establishment of these Horticulturists is the most extensive in the Union, and its reputation is well sustained from year to year.

To obviate the chance of mixture of the farina of plants of the same family they have established another nursery, at a suitable distance, so that degeneration cannot take place, and which secures to purchasers a "genuine article." Knowing thus the age, quality and process of culture of every plant, the supply from their grounds is recommended with great confidence. When properly assorted and labeled, the seeds are sold at their warehouse, No. 85 Chestnut street, where may be had likewise all kinds of garden tools and publications on Botany, Horticulture, Landscape, and Decorative gardening.

(From Poulson's American, Feb. 22.)

A correspondent begs leave to remark on the Report of the Committee of the Horticultural Society, that however well they have performed their duty, and obliged the public with a description of the beautiful exotics and cultivated gardens and grounds in the city and its vicinity, have nevertheless been in an error, in supposing, that such improvements were only to be ascribed to the present day: and that our ancestors were without a taste for such cultivation. The green house built by the late Dr. Barton, and now owned by George Pepper, Esq. was far from being the first of its kind in Philadelphia; for one was erected at Springetsbury, in the former part of last century, by Margaret Frame, youngest daughter of William Penn, who accompanied her brother, one of the proprietors in his visit to the Province: and who at that time, built one of the wings of an intended mansion, where he purposed to reside, and laid out a garden in the taste which then prevailed in England, of clipped hedges, arbors and wildernesses, which flourished beautifully till the time of the Revolutionary war, when the house was accidentally destroyed by fire—and here, just previous to that period, a fine old Aloe bloomed, the perquisites of which, from the citizens who visited it, rewarded Old Virgil for his care. There was also, a green house attached to the house of Charles Norris, Esq. where the United States Bank now stands, which was well filled with choice and curious exotics; and at the same place, was a hot house or stove, where a number of choice and excellent pine apples were annually raised, and here was a coffee tree also, which produced and ripened its fruit above 60 years since; and the large and well cultivated garden contained a collection of fruit of such excellence as might rival the best now offered, together with artichokes and other vegetables, in great perfection and abundance. Israel Pemberton, William Logan, James Hamilton, Isaac Norris, and perhaps some others, about the same time, had also handsome gardens and green houses in the city and its vicinity.

(From the New York Farmer.)

HINTS ON PRUNING.

The principal objects of pruning are to procure a good bole or trunk for timber; to form a proper head for the production of fruit; and to subserve the purposes of ornament.

To effect these objects, with the least trouble and greatest advantage, upon all non-resinous trees, the following rules are recommended:

1st. Begin to prune the tree when it is young.

2nd. Cut close and smooth to the bole or limb.

3d. Cut, when small, the branches which are likely to interfere, or become useless, and which, if suffered to remain, will require to be removed at a more advanced period of growth.

4th. Do not trim to excess. Let the branches occupy, *at least,* a third of the entire height of a tree.

5th. Do not prune when the tree bleeds.

Where the preceding suggestions are observed, we may add—

6th. Prune in summer.

I proceed to offer my reasons for the rules here recommended, and

First. The food required to nourish the lateral useless branches, will go to increase the diameter and height of the plant, or swell the fruit, if these are judiciously removed. But a main consideration is, that the excision of small branches causes only small wounds, and small wounds speedily heal. The observance of this rule, therefore, facilitates growth, promotes health, and ultimately saves labor.

Secondly. This rule needs very little argument to enforce its propriety, as every observer must have frequently seen and lamented the ruinous effects of an opposite practice. The snags either send out useless spray; or, deprived of the feeble aid of these, they die and rot, and carry disease into the bole, and are thus often the cause of the premature loss of the entire tree. If cut close, the enlargement of the living wood soon covers the wound. In large branches, where the saw must be used, the healing process is greatly facilitated, by paring the cut, particularly the exterior edges, with the pruning knife; and it is a good precaution, before you use the saw, to notch under the intended cut, to prevent tearing the bark when the limb falls. In extirpating sprouts from the roots, and neither they nor those growing from the bole should be suffered long to remain, the like precaution of cutting close should be observed; for which purpose it is necessary first to remove the earth from about the collar, with the spade or other instrument.

Thirdly. The reasons for pruning a tree while young, apply here: It is easier to cut small than large limbs, and the wounds of the former soonest heal. But the question presents, what limbs are to be cut? Generally all that are likely to cross each other, all feeble spray, the strongest on the bole, and the weakest in the lop; for while the trees are in nursery, I think it serviceable to leave a few scattering laterals upon the bole, and it is beneficial, at all ages, to thin most kinds in the lop. Yet the answer to the inquiry will depend principally upon the species of tree, and the design of the planter. If his object be timber, the leading shoot should be feathered up in a spiral form, and all other shoots likely to interfere with its growth be cut away. If the object be fruit, beauty and utility are to be consulted, and these are seldom incompatible in the eyes of a fruit grower, for with him productiveness constitutes beauty. If ornament be the main consideration, no special directions can be given, as the species employed, the location, and the taste and fancy of the planter, will have a controlling influence. The rule for timber trees will not apply to either those destined for fruit or ornament.

In orchard and garden fruit, generally, the endeavour should be to obtain a low and spreading top. When a clean bole is obtained to a sufficient height, say in the orchard, of seven or eight feet, and in the garden, according to fancy, the leading shoot should be cut in, and three or more arms or branches left to form the head, which, when the habit of the tree will permit it, should be pruned so as to give it a besom form, or that of a broom divested of its centre. Several advantages arise from this and a more expanded form. It admits the air and sun more freely, to mature the fruit and wood; it renders the tree less liable to be blown down; it facilitates the gathering of the fruit, and the pruning of the tree. But the principal advantage consists in its tendency to increase oviparous or fruit buds, and consequently to augment the fruit. A great growth of wood seems to be incompatible with a great crop of fruit, and vice versa. A cow which gives much milk, seldom takes on much flesh during the milking season. If the secreted food is converted into milk and fruit, there can be but little reasonable hope of its adding to the flesh of the animal, or the wood of the vegetable. Erect branches produce most wood buds, horizontal branches the most fruit buds. Straight limbs produce less fruit than those that are curved or crooked. Whatever retards or diminishes the flow of elaborated sap, in a healthy tree, is favorable to the production of fruit. Hence, wall trees, whose limbs are trained in the form of a fan, or in a horizontal direction, fruit better than those that grow upright as standards. Hence young trees are more apt to show blossoms the first and second year after transplanting, than in the two subsequent years. Pomologists have endeavoured to render this law of vegetation subservient to their interests, by adopting artificial means for inducing the production of fruit buds. These means consist in ring barking, transplanting, cutting the roots, training, pruning, &c. The pears in the Caledonian horticultural garden are trained *en quenouille,* that is, the lateral branches are cut in to a short distance of the main stem, and kept so, and the fruit is produced on the spurs growing from these shortened branches. In the Horticultural garden of London, the limbs of the pear are tied down in a drooping position, resembling somewhat in appearance the weeping willow. The vines cultivated at Thomery, celebrated for their superior fruit, are planted eighteen inches apart, trained in the form of a T, the top horizontally, and restricted in their growth to four feet from the main stem. In this way a treillace of eight feet long, and eight feet high, is sufficient for five vines, which produce upon an average 320 bunches of fruit. These modes of training have a common object, that of restricting the growth of wood, and producing an increase of fruit. Those who wish to examine the modes of training here spoken of, in detail, are referred to Loudon's Gardener's Magazine.

Fourthly. Leaves are as necessary in the economy of vegetation as roots. The sap must be elaborated in these before it can be transmuted into wood, bark or fruit. A tree cannot thrive, therefore, when these organs are either deficient or diseased. If sufficient leaves or branches to produce them, are not left to concoct or digest the sap which is propelled from the roots, the tree, to use a modern term, but a just comparison, becomes *dyspeptic*, the vegetable blood is vitiated, the wood loses its texture, and a stinted growth, or premature death, generally ensues. Hence great precaution should be used against excessive pruning.

Fifthly. To prune when the tree bleeds, tends to debilitate, by wasting what is designed as food for the tree. I have known it fatal to the vine. What is termed bleeding, is the flowing of the sap from wounds before it has been converted into aliment. This sap flows most freely while the buds are swelling and until the leaves are fully capable of discharging their office, as is strongly instanced in the maple, birch, &c. Our orchards are generally pruned in March, which is probably the most unfavorable month in the year for this operation.

Sixthly. The advantages of summer pruning are, that the tree being then in vigorous growth, the wounds heal speedily; and the sap being concocted and thick, does not flow from the wounds, and thereby impair the health of the plant. Summer pruning should not be performed, however, before July, when the new growth has considerably advanced. It may be well to add, as this suggestion may seem unsound, that summer pruning is recommended by the best authorities. "As a general rule," says Pontey, "summer is preferable to winter pruning;" and Sang suspends pruning "from the beginning of February to the middle of July, but carries it on during every other month of the year."*

In regard to evergreens, which with us are confined principally to resinous trees, it is the general practice of nursery-men, and I think it a judicious one, not to prune them till they have acquired some years' growth, and then but sparingly and at long intervals, displacing two or three tiers of the lower branches every two or three years. Monteith says, "never cut off a branch till it has begun to rot, as the bleeding of a live branch will go far to kill the tree."

The implements employed in pruning, and the manner of using them, are matters of moment. If the operation is commenced when the tree is young, and judiciously followed up, a good knife, a small saw, and a chisel fixed on a six foot handle, to trim the tops and extremities of the branches, are all the tools that are required. A large saw will be occasionally wanted, but an axe or hatchet, should never be employed, as they fracture the wood, bruise and tear the bark and disfigure the tree. J. Buel.

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* The Gardener's Magazine for October, has a communication from John Bowers, recommending summer as having a decided preference. The growth of trees thus pruned, he says, far exceeds that of the winter pruned. He commenced the practice in 1826, when his trees were six feet high: and in the autumn of 1829 they were 20 feet. He has this year summer-pruned 100 acres of young plantations, which in August were stated to be remarkably thriving and healthy.

RURAL ECONOMY.

Mr. Smith:

I enclose you, sir, a piece of an old No. of the Farmer, in which my paper came enveloped, as the readiest way of describing to you the article it contains, and of shewing you where it may be found on your files.

I have sought for it among the papers, of some older subscriber, but in vain, and impressed, as I am with an idea of the importance, of a method of building, that promises to obviate the combustibleness of wood, and the expense of brick or stone; presuming, too, from the date that the subscribers to your paper, since March, 1824, have not seen it, and that some of the older ones have forgotten it, I would so far presume on your politeness as to request, that you insert it again when convenient, if you deem it sufficiently, important to merit it. Very respectfully,

A Subscriber.

[We have great pleasure in complying with the request of a subscriber, and subjoin the article to which he alludes. On looking over our files, we do not find that any thing further has been received from "W. W. A." on the subject.]

PISE.

Mode of building—Its durability and economy by experiment in South Carolina.

To the Editor of the American Farmer:

Dear Sir,—In a letter which I had occasion to write to you in the beginning of the year 1821, I mentioned that I was about to make an experiment upon pisè building, by the directions contained in a book, published by S. W. Johnson of New Brunswick—I commenced early in April of that year, building a house 14 feet square, with walls 18 inches thick, for a dairy. It happened to be an extremely wet month, and it became necessary to stop the work, on account of the frequent rains, and wetness of the earth, after completing one course, which remained without injury, (although not very well protected,) until the middle of May, when the work was resumed, and the house finished. As soon as the walls were dry they were rough cast without, and white washed within; and now, after enduring the storms of three winters, I cannot perceive that any part of the roughcasting which is exposed to the weather, has sustained the slightest injury. The pisè work has become as firm and solid as the stone foundation upon which it stands, and I have not the least doubt, that the roughcasting will be as durable, as it would be on stone or brick walls. This experiment has satisfied me, that stone and brick are not necessary for the most permanent buildings, in dry situations, except for the foundations, 12 inches above the surface of the earth, or somewhat higher in those parts of the country where there are drifting snows.

In July last, I built another house of this kind, 30 feet by 16, with a chimney and partition in the middle, making two very good and comfortable lodging rooms, for my house servants. This trial has succeeded as well as the first. My ordinary field hands were the only labourers employed in making the pisè work of both these buildings. I have the foundation laid for another, which I expect to build in a few weeks, and when finished, I hope to have it in my power to furnish additional evidence, of the superiority of this mode of building, over every other now practised in this country, both for cheapness, and the expedition with which the work may be carried on, and inferior to none when well executed, in point of durability, external appearance, and internal comfort. The houses which I have built are small, but I am satisfied, that buildings of any dimensions may be made in this way. I have not experienced the difficulties complained of by Mr. Cocke, of Va. in a letter published in vol. 3d, page 157, of the American Farmer, and am of opinion, that nothing but delay would be gained, by making the pisé work in blocks, and building afterwards as with brick and mortar, instead of building upon the foundation, according to the original method. W. W. A.

Statesburgh, S. C. March 15*th*, 1824.

(From the New England Farmer.)

DISEASE IN SHEEP.

Mr. Fessenden—As the raising of sheep and the growing of wool have become an object of so much importance, every thing that would seem to impede or promote the prosperity of this great source of national wealth ought to be spread before the public. I would therefore beg leave through your useful paper to state a few facts relating to a disease, which had lately occurred among sheep in this town.

The disorder may and no doubt has been in progress some time, but its direful and deadly effects were not visible until since cold weather set in. It has appeared in different parts of the town and among those apparently in the summer and fall in the best health, but has been confined mostly to young or yearling sheep. I have carefully examined several volumes of the New England Farmer to see whether the disease was described or a remedy proposed. If we except the two following instances I have not found anything that seemed to be parallel to the one above alluded to. A writer in vol. vii. page 109, under the signature of a "Wool-grower," describes a somewhat similar disease among sheep. After examining every other part, he says that "he laid the lungs open and in the cellular substance of the lungs and in the bronchial [air] vessel there were a multitude of worms about as thick as a linen thread, and from one inch to six in length, exceeding sharp pointed at one end," &c. For which he prescribed Scotch snuff on the food, morning and evening, and tar and sulphur once a day, which appeared to improve their health immediately. A. L. H. in vol. viii. page 207, describes the symptoms, progress and direful effects of a disease as it occurred among his sheep, being no doubt the same disorder, which has made such havoc in this neighborhood. This writer not having made any examination after death, seemed to be altogether in the dark as to its cause or cure. Neither do those who answered his communication throw much light on the subject. But let us return to the malady which has prevailed among us and blighted the hopes of many a farmer.

The most common symptoms of the disease are a loss of appetite, general emaciation or leanness, with a peculiar gauntness, so that the animal is bent up almost double and is hardly able to drag its tottering frame after it, and unless the disease is arrested by a timely remedy, often a scouring sets in and the pitiable creature soon falls a victim to the fell destroyer. One gentleman having lost many promising yearling sheep in this way, determined if possible to ascertain the cause. He commenced by a careful dissection of the head, expecting to find a worm or worms, as much had been said or written to that effect. In this however he was disappointed; nothing daunted, he proceeded carefully to follow down the whole alimentary canal, examining every part; no sooner had he opened the stomach but he found innumerable minute worms from an inch to two inches in length, in size from a fine to a coarse linen thread, in color white or nearly so with one end sharp, and when examined soon after the death of the animal, they were very lively. Other dissections carefully made by many other individuals have confirmed the presence of *like worms* not only in the stomachs but in the small and large intestines of sheep dying of this disease. As soon as the cause of death was ascertained the following simple remedy was resorted to, which has not failed, I believe, in a single instance of effecting a cure, when timely administered. Half an ounce of Gum Aloes pulverized and mixed with a little meal and water, enough to make the whole into thick dough, is a full dose for one sheep, and may be conveniently given by opening the animal's mouth and putting it on the root of the tongue with the handle of a common iron spoon, or it may be made into small balls, and in like manner given.—This quantity proves an effectual purge, and brings away large quantities of worms, whereupon even many sheep apparently on the verge of death have been restored in a few days to wonted health.

From many faithful trials of the aloes in smaller doses, given to sheep slightly diseased, having poor appetites, &c. the most decided good effects have followed. One gentleman having nearly 100 fine lambs in the fall, after losing about half of them, I advised him to try aloes as above directed. He first procured ¼ lb. had it pulverized and ordered it given to eight only, but through mistake it was given to about twenty; a decided good effect followed the administration of the medicine. He has since procured, and made use of a pound or more, by the use of which he says he has saved his flock.—The above facts are submitted, wishing that a fair trial may be made of the aloes, should the same disease occur, or any other, where a purge is indicated, as it can be more easily given than any other of that class of medicines. The price of this article is cheap, it may be procured of any apothecary. I leave to others, more acquainted with entomology, to give a name to the worms above described, and to inform the public whether they are natural to the sheep in a state of health, and only when in too great numbers or under some peculiar circumstances they are the cause of death, and likewise to explain the reason why young sheep, in particular during the winter, fall the victims of this disease.
L. W. Briggs.

Bristol, R. I. Feb. 21, 1831.

MISCELLANEOUS.

FIRST USE OF TEA IN ENGLAND.

About 1650, (says Macpherson,) the East India Company received from Bantan two canisters, containing 143 lbs. of tea; and this is believed to have been the first importation of this article.

The first authentic notice of tea, as an article of consumption in England, appears in an act of Parliament, (12 Car. ii. c. 23,) passed in the year 1660, a duty of 8 pence is charged on every gallon of chocolate, sherbet, and tea, made for sale, while coffee, and even foreign spirituous liquors, are charged only 4 pence. Thus it is certain that tea was then used in England, but that the use of it was new, and far from being general, appears from the following curious memorandum in the diary of Mr. Pepys, the Secretary of the Admiralty: "Sept. 25th, 1661, I sent for a case of tea, a Chinese drink, of which I never before had drunk."

In the year 1662, King Charles the second married a princess of Portugal, and it may be presumed that the new queen was fond of tea, and rendered it more fashionable in England than it had been before, as the poet Waller, in a panegyrical ode on her birth day says:

> "The best of queens, and best of herbs we owe,
> To that bold nation, who the way did show,
> To the fair region, where the sun doth rise,
> Whence rich productions we so greatly prize."

He also supposed it endowed with the power of inspiration: for he says,

> "The Muses' friend, tea, does our fancy aid."

It is evident that for a long time, tea continued to be brought to Europe in very small quantities; for, in the year 1664, the East India Company, desirous of providing some rarities as presents to the King, purchased 2 lb. 2 oz. of tea, (apparently all that could be got,) which cost them 40s. a pound.

THE FARMER.

Baltimore, Friday, March 11, 1831.

Conclusion of the 12th Volume.—The present number closes the 12th volume of the American Farmer, and, for the greater convenience of our subscribers as well as ourselves, we have, by extra exertion, accompanied it with a title page and copious index. This being the season for withdrawing or renewing subscriptions; and, in consequence of the late change of proprietors and editors, a most important one to us, as it is the first that has occurred, by which the new editor could ascertain the degree of approbation he may have been so fortunate as to meet with among his numerous respectable readers, it may not be considered improper to address a few words to our subscribers on the subject. It would be the sheerest affectation in us to seem indifferent as to the withdrawal or continuance of a subscriber's name on our list. The proprietors and editor have embarked all they possess in the undertaking, and devoted all their time and such talents as they can command to its support. It is natural, then, that they view with concern the withdrawal of a single name, and hail as propitious the addition of one to their list. The subscribers to the Farmer have now had a fair opportunity to form an opinion how far it would be worthy of their patronage under the new arrangement, and we confess, we wait their judgment with some degree of trepidation: so far, the withdrawals have not been more numerous than we had reason to expect.

For ourselves we can only say, that, being exclusively devoted to the interests of the farmer—by which we mean the agriculture of our whole country—we shall devote our time and our talents to their promotion, so long as our labours shall be acceptable. We cannot promise much improvement in the character of our Journal from our own labours, having exerted our best energies; but there shall certainly be no falling off. We shall probably be able to command more original matter than heretofore, from practical men; and, to this end, we have a plan in view for offering premiums for essays, which we shall probably lay before our readers in the next number. The alterations we have made in the arrangements and matter of the Farmer seem to have met the approbation of all our subscribers, as we have received no indication to the contrary, and will therefore be adhered to. Five or six of our subscribers have expressed a desire that the little summary of "contents" should be restored to each number, and it has accordingly been done;—our only object in omitting it having been the devotion of the space it occupied to more useful matter.

In conclusion, we beg leave to remark, that as all other interests have numerous journals devoted to their promotion, it would seem that agriculture ought also to possess them. Indeed, if they are necessary to any interest, they are particularly so to that of agriculture. It is true, without them politicians would come lamely off; for they are the implements of their calling, and well do they know how to handle them: but, with this exception, there is no profession so immediately and extensively benefited by the press as that of agriculture. For proof of this let the observant reader look about him, and take a view of the improvements effected in the husbandry of our country within the last twelve years. We will not claim them all as the effects of the press, but we may safely say, that it has been the prime mover of them. And here it may not be out of place to ask—are these improvements of any value to the agricultural interest and to the country? May we not answer, they are of immense value to both? And if they are, ought not the agricultural press to receive an adequate support? An agricultural paper is not alone beneficial to its immediate subscribers; every farmer in the country is benefited by it, and is as much interested in its continuance as they are who take it: for all improvements effected by its means, and all matters of interest it may contain, are obtained by observation and social communication by all the neighbours of a subscriber, and are thus distributed to every tiller of the soil in the union. In this view of the case, subscribers to agricultural papers may justly consider themselves as benefactors of their country. They do not subserve their own individual interests exclusively, nor are their interests alone involved in the question whether they take such a paper or not. Their children, their neighbourhood, their country have an interest in it. Let us suppose a case: if all the present subscribers were to withdraw their names from the subscription lists of the agricultural papers, and these useful journals were thus to cease, would not the whole country suffer material injury? We do not hesitate to say that it would, and that agriculturists themselves would feel the loss most sensibly. As no paper can exist without subscribers, every man should take this view of the case before he withdraws his subscription. He should consider that he is about to withdraw thus much of his support from his country's best interest; (for we do contend, that the best interest of this country is in its agriculture, and that all other interests are subordinate to it;) and if necessity compels him to adopt this as a means of alleviating his condition, he should use his best endeavours to obtain the name of some one else as a substitute for his own. We have, of course, kept the merits of the papers out of view, and treated the discontinuance of subscriptions upon the ground of expediency, as involving the interests of farmers and the country. Certainly, if a subscriber, upon a careful and liberal view of the merits of a paper, is compelled to decide that it is unworthy of his support, let him discontinue it;—it is his duty to do so. But in making up his judgment in this case, he should divest himself, as far as possible, of all predominating prejudices and self-interest. He should consider himself, as he really is, a judge, in whose decision the interests of his country, himself, and the publisher are involved. He should take particular care that the second party to this issue be not allowed undue influence in the verdict. In reviewing the evidence in the case, he should not overlook that offered by the defendant in extenuation of his delinquency. He will probably plead, that, if he has not been able to make the paper sufficiently interesting to you, it was because the general interests of the great body of his subscribers would not admit of it, because they are not all devoted to the same branch of agriculture; for to devote his paper to any one branch would be detrimental to all others, and would subject him to much more extensive censure. He may also ask, if you have not received some benefit from his labours that will remunerate the cost of subscription. He will, of course, make no plea to the charge of incompetency, if such be made;—his assumption of the place he occupies is to be taken by you as a sufficient indication of his opinion on that score; neither will he plead that he has done as well as he could, nor are you to accept of such a one. But, in making up your opinion on this charge, do not allow unfair comparisons to be drawn between him and others; but if his works are to be decided upon their merits, compared with those of other agricultural writers, let the comparison be fairly made, by discarding all extraneous matter, such as popular names, and make due allowance for difference of circumstances. Whatever be your decision, after such an investigation, no one will have reason to complain, however deeply the interest of the proprietors of the paper and of the country may be involved in it. For ourselves we can only say, that *our all* is invested in the American Farmer, and our prosperity or adversity will be the consequence of the continuance or discontinuance of a few subscribers.

That a full and perfect understanding of the relations existing between us and our subscribers should be had, we have, for some time past, published the terms of subscription to the Farmer conspicuously in our columns, and we beg leave to call the attention of subscribers to them, and to remark, that, as they have been adopted after full and careful consideration of their necessity, a compliance with them, on the part of the subscribers, will be expected.

Devonshire Oxen.—The carcases of those two beautiful Devonshire oxen, were brought to the scales yesterday, by Mr. John Tier, butcher of Washington market, for sale this day, and we venture to state, that a finer stall of beef was never exhibited in the city of New York.

One carcass weighed 1528, and the other 1438 pounds. We hear also, that an experienced farmer and grazier, from England, (a Mr. Fisher) estimated their actual dead weight, within 29 lbs. each, before they were slaughtered.

The above superior oxen were bred and fed by Mr. Hurlbut, of Winchester, Con. who derived the original stock from that celebrated and opulent English agriculturist, (and staunch friend to America) Mr. Coke, "the oldest member of the British parliament."

[Mr. Hurlbut procured his stock from Mr. Patterson, of Baltimore, and says his cattle have been greatly improved by the Devonshire blood. He thinks no oxen comparable with them for beauty, activity, and almost unvarying uniformity of colour—mahogany red, with a white brush to the tail. Mr. Hurlbut sells, annually, not less than a hundred and fifty thousand pounds of cheese in this market, and is one of the most enterprising husbandmen in the United States.]

Prices Current in Boston, March 2.

Apples, new, bbl. 1.75 a 2.00. *Beans*, white, bushel .90 a 1.00. *Beef*, mess, bbl. 8.75 a 9.00; cargo No. 1, 7.50 a 7.75; No. 2, 6.50 a 6.75. *Butter*, inspected, No. 1, new, lb. .11 a .15. *Cheese*, new milk, 6. a 8.; skimmed milk, 3. a 4. *Flour*, Baltimore Howard-st. 6.75 a 6.87; Genesee, 6.75 a 6.87; Rye, best, —- a ——. *Grain*, Corn, bu. .70 a 72; Rye, .75 a .80; Barley .60 a .65; Oats 44 a 46. *Hogs-Lard*, 1st sort new, lb. 9 00 a 10.00; *Pork*, clear, bbl. 17 a 18; Navy, mess, 13.00 a 14.00; Cargo, No. 1. 12.50 a 13.50; *Wool*, Merino, full blood, washed, .60 a .65; do. do unwashed, .— a .—. Merino mixed with Saxony, .65 .75; Merino, three fourths washed, .52 *a* .58, do. half blood, .48 *a* .50; do. quarter, 40 *a* 42. Native, washed .40 a .42; Pulled, Lambs', 1st sort, 50. a 53; do. 2d sort, .42 a .44; Pulled Spinning, 1st sort, 45 *a* 50.

Prices Current in New York, March 5.

Beeswax, yellow 19 a 21. *Cotton*, New Orleans .10 a .11; Upland, .8½ a .10; Alabama, .9½ a 11. *Cotton Bagging*, Hemp, yd. 18 a 20; Flax 12½ a 16; *Flax*, American, 7 a 8.——-*Flaxseed*, 7 bush. clean .14.00 a .14.50 *Flour*, N. York, bbl. 6.87½ a ——; Canal .7.00 a 7.25; Balt. Hwd. st. —— a 7 00—; Rh'd. city mills 6.75 a 6.87½ country, 6.75 a 6 87½; Alexand'a, 6.87½ a 7.00; Fredericksburg 6.75 a ——; Petersg, 6.75 a 6.87½; Rye Flour, —— a 4.25; Indian Meal, per bbl. 3.50 a 3 62½; per hhd. 16.50 a 16.75. *Grain*, Wheat, North, 1.40 a 1.45; Vir. 1.35 a ——; Rye, North, 75 a 76; Corn, Yel. Nor. .73 a 75; Barley, 78 a 79; Oats, South and North, .40 a .44; Peas, white, dry, 7 bu. 5. Beans, 7 bu. 7.00 a 8.00. *Provisions*, Beef, mess 8.50 a 9.00; prime 5.50 a 6.25; cargo 4.50 a 5.00; Butter, N. York, 12½ a 16; shipping, 8 a 11; Lard, 8½. a .9; Pork, mess bbl. 13.00 a 14.25; prime 9.75 a 10.37½.

Prices Current in Philadelphia, March 5.

Bees-wax, yellow .20 a .21; *Beans*, bushel .100 a 1.12½ *Beef*, mess 10. a 10.50, prime 8 a 8.50, cargo 7; *Butter*, No. 1, 8½ a 9, No. 2, 6½ a 7; *Cotton*, New Orleans 11 a .12; Mobile 10 a 12; Tennessee — a —, Alabama — a —; *Feathers*, South. .33 a .33½, West. .33 a .—; *Flax* .6 a .7. *Flour*, sup. 6.75 a —; fine, 6.50 a ——-Rye 4.00 a — Corn meal, bls. 3.00 a —, hds. 14.00 a ——; *Flaxseed*, cask ——; bu. 1.45 a 1.55; *Grain*, Wheat 1 30 a 1.37½ Rye 62 a 65. Corn l. c. white, — a .—, l. c. yellow, — a .—, u. c. round, — a —; Oats .33 a .35; Barley, Pa. .60 a .85; do. East. 87 a 90; black-eyed Peas .40 a .50.

SEEDS.

150 bushels of ORCHARD GRASS SEED of superior quality free from foul seeds. 30 bushels Tall Meadow Oat Grass Seed, Herd's-grass, Clover, Timothy Seed, Oats, Spring Rye, Mercer, and Early Manley, Potatoes, FRESH GARDEN SEEDS and Garden Tools, together with a general assortment of Agricultural Implements, Fruit Trees, &c. for sale by SINCLAIR & MOORE,

March 11. Pratt street wharf, Baltimore.

NEW CATALOGUE—PRICES REDUCED.

Linnæan Botanic Garden and Nurseries, Flushing, near New York.

Wm. Prince & Sons, proprietors of this establishment, now announce that the great extension made in their establishment, which now covers near 50 acres, *compactly filled* with the choicest Trees, Shrubs, &c. has enabled them *to reduce the prices* for various kinds, and their *new catalogue*, with the *reduced prices*, will be speedily presented to the public, when it may be obtained of the various agents, or by application to themselves direct per mail. The greatest attention and strictest scrutiny have been exercised in regard to the quality and accuracy of their trees, and they are of larger size than at any previous period. Aware that the establishment of Nurseries in every part of our country would be a national advantage, they will furnish all supplies in such cases at a liberal discount, and at a credit to comport with the convenience of the purchasers. Any information desired will be furnished by return of mail to those who desire it, and all orders, &c. will receive the accustomed attention and dispatch. GIDEON B. SMITH,

Agent, Office American Farmer.

AGRICULTURAL WAREHOUSE AND SEED STORE.

The subscriber would inform the public that he has the following articles in store for sale, all of the best materials, faithfully and well made, viz.

Gideon Davis' highly approved Patent Ploughs in all their variety—Davis' ploughs improved as more adapted to stiff soils. Bar Share and Coulter Ploughs improved. Substratum and Shovel Ploughs, Cultivators for Corn and Tobacco. His Patent Cylindrical Straw Cutters, superior to any other article of the kind in use, also Dutch Cutting Boxes, Wheat Fans, Threshing Machines, an assortment of Hoes, Shovels, and Spades, Hay and Manure Forks, Cast Steel Axes, Wove Wire, together with a variety of other implements of husbandry of the most approved kinds. Also a general assortment of the Messrs. Landreth's Garden Seeds, which are fresh, and of prime quality, Clover and other Grass Seeds. Fruit and ornamental Trees, Bulbus Roots, Flowers, &c. furnished to order. Likewise Peirson & Walker's superior Mule and Jenny Spindles. J. S. EASTMAN.

N. B. Plough castings kept constantly on hand to supply the place of those worn out, also all kinds of repairs done at short notice. J. S. E.

FRESH EUROPEAN GARDEN SEEDS.

The subscriber has just received from Europe a small supply of the very best seeds of the following kinds, growth of 1830, and raised by one of the first horticulturists in Europe:—Cabbage, Early York, Early George, Wellington, Sugar-loaf, Ox Heart, Bonneuil, late German or Dutch, Red Head, curled green Savoy; Dutch Asparagus, blood and yellow Beet, Nasturtium, Long Red and Yellow Carrot, Solid Celery, Curled Endive, Cauliflower, (early and late,) Brocoli, (white and purple,) White Dutch Cucumber, Long Green do. Windsor Beans, Long Pod do. Prickly Spinach, Early Head Lettuce, (several other kinds,) mellons, the best kinds known in Europe, Onion, white, pale and deep red, Long Parsnip, Curled Parsley, six weeks' Peas, Tomatoes, Early round Turnip, round Dutch yellow Turnip, early long rose coloured Radish, early rose coloured Turnip Radish, Sea Kale, &c.; altogether forming one of the most choice assortments of seeds ever imported. Those who wish to obtain such seeds for spring planting, are advised to send in their orders early. Orders to the amount of five dollars can be sent by wagons to any part of the western country, and by water to any part of the southern states.

GIDEON B. SMITH, Farmer Office.

BALTIMORE PRICES CURRENT.

Baltimore Market.—We advance our quotations for flour and wheat. Howard street flour from wagons was worth yesterday $6.50. Our present quotation of red wheat is paid only for shipping, as millers decline grinding at such a price. The present advance is caused by the state of affairs in Europe, and it is subject to the vicissitudes incident to such a state of things. Some of our best informed men believe the advance will be sustained, and even go higher, while others are of a contrary opinion. Our advice to farmers would be, to avail of a market at which they can do well, in preference to waiting to do better.

Tobacco.—Seconds, as in quality, 3.50 a 5.00; do. ground leaf, 5.00 a 9.00.—Crop, common, 4.00 a 4.50; brown and red 4.50 a 6.00; fine red, 6.00 a 8.00; wrappery, suitable for segars, 6.00 a 10.00; yellow and red, 8.00 a 14.00; yellow, 14 00 a 16.00.—Fine yellow, 16.00 a 20.00.—Virginia, 4.00. a 500.—Rappahannock, 3.00 a 4.00——Kentucky, 4.00 a 8.00. The inspections of the week comprise 7 hhds. Md.; 5 hhds. Ohio; total 12 hhds.

Flour—best white wheat family, $7.00 *a* 7.50—super. Howard-street 6.62½ *a* ——; city mills, 6.50 a ——; Susquehanna, — *a* —; Corn Meal, bbl. 2.25 Grain; red wheat, 1.34 *a* 1.40; white do. 1.40 *a* 1.45 Corn, white, 60 *a* ——- yellow 60 *a* ——-new white — *a* .—-yellow — *a* —-Rye, .60 *a* .62. Oats, .33 *a* 34, Beans, 90 *a* 1.00-Peas, 50 *a* 60—Clover seed 6.00 *a* 6.50 Timothy, 2.00 *a* 2.50—Orchard Grass, 1.50 *a* 1.75—Tall Meadow Oat Grass 3.00——Herd's, --- *a* 1.00—Lucerne 30 *a* 37½ lb.—Barley, 62½—-Flaxseed —— *a* 1.30-—Cotton, Va. 9½ *a* 10½—Louisiana 11½ *a* 12½—Alab..9 *a* .11—-Tenn..9 *a* .10—-N. Car..9 *a* .10½-— Upland 9 *a* 11—-Whiskey, hhds 1st p 30 *a* —-; in bbls 30½ *a* 31—Wool, common, unwashed, lb. 15 *a* .16-— washed, .18 *a* .20-crossed, .20 *a* .22-three-quarter, .28 *a* .30--full do. .30 *a* .35, accord'g to qual.-Hemp Russia, ton, $220 *a* --; Country, dew-rotted, 5. *a* .6c.-lb. water-rotted, .6 *a* 8c.—Fish, Shad, Susquehanna, No. 1, bbl. — *a* —— do. trimmed, 7.00—North Carolina, No. 1, 7.00—Herrings, Susquehanna No. 1, bbl. 3.75 *a* 4.00--Mackerel, No. 1, 6.37½, *a* 6.50--No. 2, 5.87½ *a* ——No 3 3.50 *a* ——; Bacon, hams Balt. cured 10c.—:Feathers, 33 *a* —-Plaster Paris, cargo price per ton, 4.25 *a* 4.37½, ground, 1.37½ *a* —-bbl.-Iron, gray pig for foundries per ton 30.00 *a* ——; high pig, for forges, per ton, 25.00 *a* 28.00; bar, Sus., per ton, 80.00 a 85.00.—Prime Beef on the hoof, 5.50 *a* 6.25—Oak wood, 3.00 *a* 3.25--Hickory, 4.50 *a* 4.75—Pine 2.00 *a* 2.25.

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